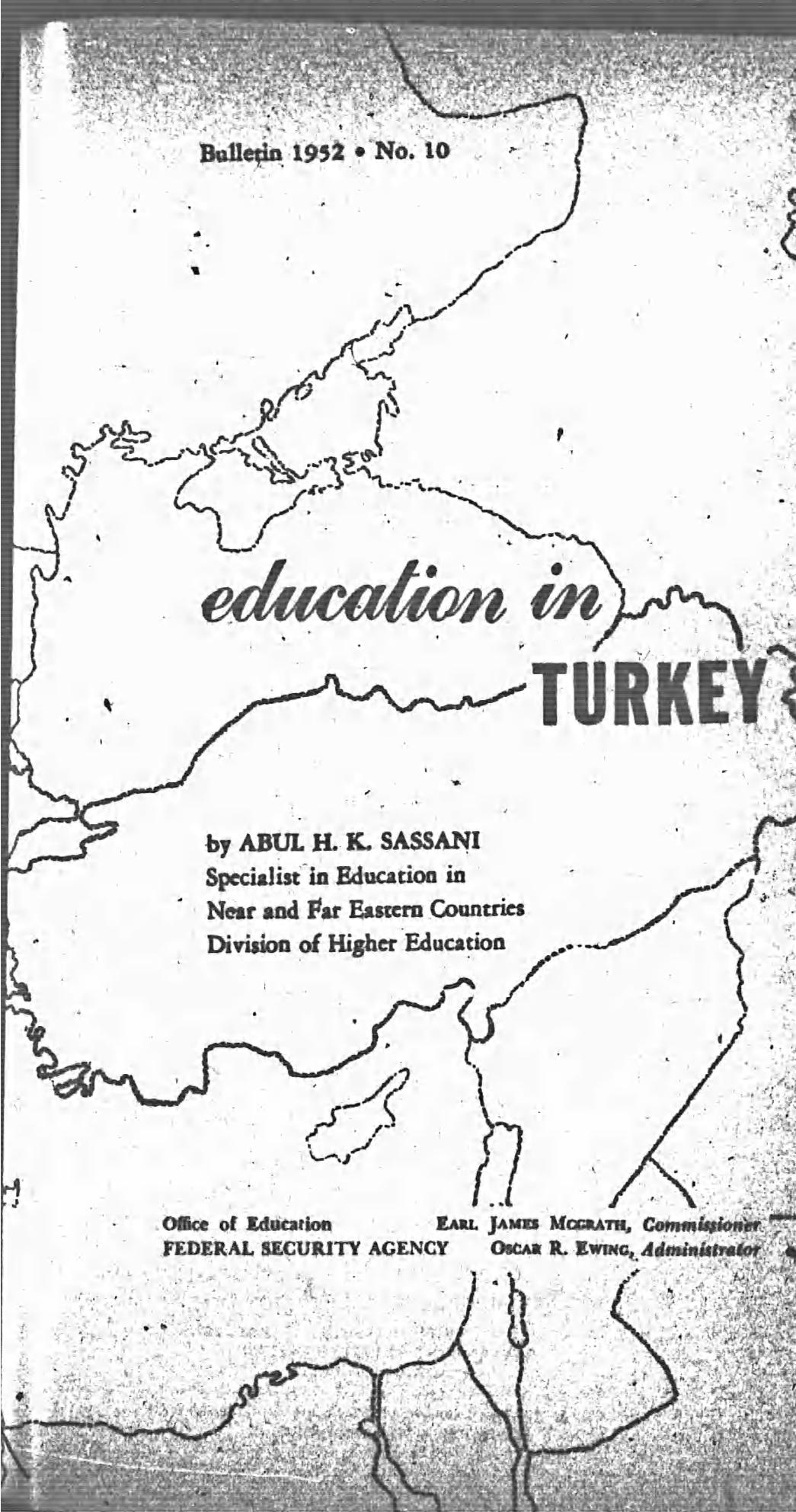


Bulletin 1952 • No. 10



A black and white outline map of Turkey is centered on the page. The map shows the country's coastline and internal borders. Overlaid on the map is the title text.

*education in*  
**TURKEY**

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Office of Education  
FEDERAL SECURITY AGENCY

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## *Foreword*

The Office of Education has undertaken the preparation of a series of basic studies on education in a number of countries in Europe and Central and South America. This series of studies was made a part of a program to promote understanding of educational conditions in these areas and also to furnish the American college registrars with data on foreign institutions which they so urgently need.

*Education in Turkey* is the first one undertaken by this Office in the Near and Far East area. It is based on data gathered by the author in Turkey in June 1951 and supplemented since then through documentation. While data include necessary information needed by the school officials who deal with student transfers, the scope of the material presented is wide enough to be useful to scholars in the field of comparative education, particularly those who are interested in knowing the role that education plays in the life of the New Republic. The reader will find that the new Turkish leaders have made provision for education to be an important part of their program for national unity and development. These modern Turks have lost no time in bringing together whatever educational institutions they inherited from the old Ottoman era, organizing them into one system of schools, improving them as much as means would permit, and adapting them to the new social and political conditions.

To the many persons in Turkey who helped the author during his visit in Turkey, this Office is deeply indebted and expresses its gratitude.

BUELL G. GALLAGHER  
*Assistant Commissioner  
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# Turkey and Her People

## THE COUNTRY

TURKEY IS virtually a bridge between East and West both geographically and culturally. The narrow Turkish Straits (the Dardanelles and the Bosphorus) and the little Sea of Marmara, which provide the only waterway between the Black Sea and Mediterranean, separate Turkey in Europe from Turkey in Asia. The country is not quite as large as the States of Texas and Louisiana combined. It has an area of 296,503 square miles, 96.9 percent of which lies in Asia and the rest in Europe. The country is bounded on the North by the Black Sea; on the northeast by the Russian Caucasus; on the east by Iran; on the south by Iraq, Syria, and the Mediterranean Sea; on the west by the Aegean Sea and Greece; and on the northwest by Bulgaria. It has a total of about 367 miles of land frontier with Russia and approximately 124 miles with Bulgaria. The Dardanelles and the Bosphorus are the Soviet Union's only outlets to the Mediterranean. Possession of Istanbul and the Straits would enable an aggressive power to use Turkey as a base to control the Eastern Mediterranean and make air attacks on shipping there and all along the sea lanes which pass through the Suez Canal. Turkey's strategic importance is, therefore, fully recognized by all major powers.

The country's geographical position explains why Turkey has occupied an important place in history since ancient times. By commanding the traditional migration and trade routes between Europe and Asia, Turkey has been able to weigh the merits of contending powers.

## THE OLD OTTOMAN EMPIRE

The history of the Turkish people reaches back into the dawn of civilization. The earliest civilization in Asia Minor was that of the Hittites, whose empire was established between 2000 and 1000 B.C.

Their influence upon the modern world may have begun in about A.D. 1280, when a Turkish tribe called Osmanlı or Ottomans named after their leader Othman founded a kingdom in Anatolia which later became the center of a great Ottoman Empire. Between A.D. 620 and 628, the Turks were allied with the Eastern Roman Empire against Iran. The tenth century saw Turkish dynasties founded between the Caspian Sea and the Indian Ocean. By the middle of the 1600's, the Ottoman Empire was the largest in the world. Its area then was almost as large as the United States and extended into three continents. In Europe it stretched far enough north to cover the Balkans and the greater part of Hungary, including Belgrade. In Asia Minor it took in Anatolia, the Crimea, Syria, Arabia, Palestine, Mesopotamia, Armenia, and Kurdistan. In Africa it included Egypt, Tripoli, Tunisia, and Algeria. It controlled the Black Sea and most of the Mediterranean.

Under Suleiman I, known as "the Magnificent," who conquered Persia, Mesopotamia, the North Coast of Africa and laid siege to Vienna, the Ottoman Empire reached the height of its glory. It became the strongest military power in Europe. Then followed two centuries in which the Empire decayed internally. A 6-year war with Russia, which ended in 1774, resulted in loss of prestige and territory. From then on the Ottoman Empire, formerly on the offensive, had to wage defensive warfare against many attackers. The country was plagued with civil wars and insurrections of Serbs, Greeks, Rumanians, Egyptians, and other minority groups who wanted independence. By 1914, the Balkan States had become independent; Great Britain, France, and Italy had annexed the Ottoman possessions in North Africa; and that great Empire had become known as "the Sick Man of Europe." The only part of Europe it held was the capital Istanbul and a little area nearby. The end of World War I was also the end of the Ottoman Empire. The country became an important theater of the war since it had sided with Germany and other Central Powers. After the defeat of Germany, the Empire lost all its territory in Asia Minor except Anatolia.<sup>1</sup>

The Ottoman Empire was built up and ruled by a succession of remarkable, warlike, and often cruel monarchs called sultans. It should be noted, however, that generally these sultans did not interfere with the social, cultural, and religious life of the conquered peoples. For instance, the Greek Orthodox, Roman Catholic, Gregorian (Armenian), and Jewish minorities were granted full autonomy to worship, open

<sup>1</sup> *Modern Turkey*. Booklet prepared by the Turkish Information Office, an Agency of the Turkish Republic, in New York.

schools, and follow their cultural activities. Finally, after several years of struggle under the leadership of a remarkable political leader, Mustafa Kemal Ataturk, from the ruins of the Old Empire there rose a new Turkish State. The Republic of Turkey, with Ankara as the capital, was proclaimed on October 29, 1923.

## TURKEY AS A NATION TODAY

Turkey under Mustafa Kemal Ataturk set out to be a modern nation and became a healthy republic with amazing vitality. In 1924, the office of Caliphate and the rule of religious courts were abolished. The charter of the new republic was a constitution and a bill of rights similar to that of the United States with the same concept of individual liberty and law. Almost overnight a social revolution, bloodless and with an unprecedented speed, ushered in a new way of life in Turkey. All Ottoman titles, such as pasha, bay, and effendi, were abolished. The wearing of a fez, which denoted allegiance to the old Ottoman Empire, the laws requiring women to veil their faces, and the oriental splendor were all things of the past. The modernization of Turkey, which was the goal of Kemal Ataturk, has been continued by Ismet Inonu, who followed Ataturk in the presidency, and by Mahmut Celal Bayar, the new president, through the adoption of many other far-reaching reforms along western lines.

One of the most important items in Ataturk's reform program was the separation of church from state. No attempt was made, however, to interfere with the Moslem religion or with the desire of individuals to follow it. There are many mosques in the country, and the most famous ones, such as Sultan Ahmet, Ayasofya, are located all along the Golden Horn. Even in modern Turkey, during the month of Ramazan, the call of the muezzin can be heard from the tops of the minarets, and at noontime and sunset one can always see orthodox Moslems washing their hands and feet in the mosque courts in preparation for daily prayer. The abolition of the religious courts caused a gap which was soon filled by the constitution and a code of civil law patterned after that of the Swiss Republic but modified to meet the Turkish need. The vast majority of the population are Moslems, but there is no official state religion.

The country's transportation and communications systems are still in the process of being developed. Since 1923, the length of the railroad system has been almost doubled. Locomotives from the United States are gradually being put into service. A 9-year construction pro-

gram has already been started with American technical help. Ships purchased from the United States have greatly contributed to the expansion of the Turkish merchant fleet. Turkish Airways Administration operates a network of airlines connecting a number of the larger cities. Three large radio transmitters, which are under state administration, provide entertainment, news, and education throughout the country.

Under a 10-year health program, Turkey has launched a vigorous campaign to combat diseases. The health of the nation was badly neglected under the old Ottoman Empire. The country then had a very high mortality rate. Today there is a nation-wide health and accident insurance plan which includes all workers in establishments employing 10 or more workers. The development of medical facilities and Government support of gifted doctors in completing their studies abroad have been important in the success of the health plan.

Few changes introduced by the new republic had such sweeping consequences as the shift from the Arabic to the Latin alphabet. Arabic script is written from right to left and is similar to shorthand in its complicated system of omitting vowels. Any slight error will either make the meaning unintelligible or convey an erroneous meaning. To learn the script and use it accurately requires many years of study and practice. This was one of the causes of a high degree of illiteracy in Turkey. The change of the script to the Latin characters in 1928 was the beginning of a great educational campaign. Since then evening schools for adults, village institutes, and similar institutions have been established, and education has become free. Today education and national defense in Turkey vie with each other for first place in the national budget.

## THE TURKISH PEOPLE

Turkey now has a population of 20,934,670. Out of this total, 5,267,695 live in cities and 15,666,975 in the villages and rural areas.<sup>1</sup> The average population density is somewhat low, mainly because of the many wars fought during the country's long history, but the population is increasing gradually and the present birth rate is one of the highest in the world. Turks are generally a happy, quick-witted, and thrifty people with rugged individuality and a sense of national values. They are hard workers, enthusiastic sportsmen, and have the reputation of being very courageous.

<sup>1</sup> Turkish Official Census, 1950.

In accordance with Moslem tradition and the social system of the Ottoman Empire, women were excluded from the daily life of men. Generally the Turkish women lived within the compounds of their houses, girls grew up behind the latticed windows, and their husbands were chosen by their parents. Women could be divorced from their husbands without recourse to a legal procedure. Today, under the new constitution, the Turkish woman not only has won her complete emancipation but has a right to vote, and the country has a higher percentage of women legislators in the National Assembly than any other country in the world. There are now women physicians, judges, civil servants, executives, artists, nurses, members of parliament, pilots, and so forth. Women are employed in the factories, trade schools, and in the country's reconstruction program in which the Government forbids discrimination because of sex.

Today in Turkey, young girls are studying dancing, dramatics, and singing at the Ankara Conservatory. In a flying school on the outskirts of Ankara, young Turkish girls are training for civil aviation. Thousands of girls are learning useful professions, which they will practice in all parts of that country. Girls are also trained in the "Village Institutes" to acquaint them with the modern methods of agriculture, as well as with the social sciences, sanitation, child care, dancing, and music. When their training is completed, these girls return to their villages and farms where they become social workers and village teachers.

## CLIMATE

The climate of the country varies from region to region, and it ranges from typical Mediterranean to typical Alpine. The high interior plateau of Anatolia is almost semi-arid, whereas the coastal regions enjoy abundant rainfall. The weather along the Black Sea, Dardanelles, and Bosphorus is considerably cooler than along the Aegean and Mediterranean Seas. Mt. Ararat (16,915 feet in elevation) in the northeastern part of Turkey remains snowcapped all the year round. On the other hand, there are deserts in the southeastern region.

## NATURAL RESOURCES

Turkey is predominantly an agricultural country. Wheat ranks first among Turkish crops. The country also produces barley, oats, rye, corn, and rice. Citrus fruits, bananas, and cotton are grown in the south. Tobacco and cotton are the principal export crops. Approximately \$30,000,000 worth of Turkish tobacco is purchased an-

nually by the American companies alone. Figs, raisins, filberts, and walnuts of exceptionally high quality are grown in many areas. Other export items are opium poppy seed, olives, olive oil, flax, hemp, sesame, spices, and attar of roses. Horses, cattle, water buffaloes, sheep, and goats are the main farm animals. Turkey has fairly rich mineral resources of coal, copper, iron, chromium, manganese, mercury, and sulphur. Besides these, there are also nickel, tin, cobalt, alabaster, platinum, alum, antimony, soda, and zinc. Recently oil has also been discovered.

Under a new law passed in 1945, Turkey has become a country of small farmholders. No person is permitted to hold more than 1,200 acres. The average individual farm has about 14 acres. In addition, each village has a good deal of common property which may include grazing and meadow land, forests, mountains, etc. The Ministry of Agriculture has stations throughout the country to provide the farmer with information about new tools and farming methods. The goal of the new industrialization program is to establish important industries with emphasis upon those to which the country is well adapted, such as copper manufacturing, iron and steel works, the textile industry, and paper mills. The technical schools are constantly training skilled hands to run the new industries. This is a different picture from that of the Ottoman Empire when the country was totally dependent upon imports of all types of industrial products.

## GOVERNMENT

Turkey is a Republic with a constitution which was founded on the ideals and institutions of Western democracy and was adopted on April 20, 1924. The Grand National Assembly of Turkey, by law the only representative of the nation, exercises sovereignty in the name of the country. The legislative and executive powers belong to the Assembly. The National Assembly exercises its legislative functions directly, and its executive power through the intermediary of the President, whom it elects, and through a Prime Minister and Cabinet chosen by him. The Assembly controls the acts of the Government and may at any time withdraw power from it. The judicial power is exercised in the name of the Assembly by independent tribunals constituted in accordance with the law. The Grand National Assembly, numbering 487 members, is chosen every 4 years at a general election. Its first act is to elect the President of the Republic, who then formally inaugurates the annual session of the Assembly on the first day of November. The President chooses the Prime Minister, who must be a member of the Assembly. The Prime Minister has the responsibility of forming a Cabinet, members of which must also be members of the Assembly.

The Turkish Cabinet includes Ministers of Education, Justice, National Defense, Interior, Foreign Affairs, Finance, Public Works, Economy, Health and Social Welfare, Customs, Agriculture, Communication, Commerce, and Labor.

The country is divided into 63 units called Vilayets (Provinces). Each Vilayet is administered by a Vali (governor) appointed by the Minister of Interior. Each Vilayet also has a provincial assembly and municipal councils, whose members are elected by the people for 4-year terms. In turn each Vilayet is divided into smaller administrative units known as Karas, and each Kara is divided into Nahiyas. The executives of these units are appointed by the Minister of Interior. This system has been in practice in Turkey for centuries and seems to work well.

During the last decade the new Republic has transformed the land and the people. A country which was once thought of as a far-off place of sultans and harems has become a modern state based on modern democracy and on the fundamental principles of human rights. Without terror or confusion and with little bloodshed, a social revolution has changed all old ways of life in Turkey. The people have accepted these changes and feel proud of the astonishing results they have achieved in every sphere of cultural and technical progress. Turkey has also achieved tremendous success in international politics. She has become a country respected by all other nations, and has proved that she can be trusted to fulfill her pledge to work with the United Nations in the common fight for freedom, democracy, and peace. Turkey is now a member of the North Atlantic Treaty Organization.



*Girls' Classroom in Izmir*

## *Development of Education and Its Administration*

### EDUCATION DURING THE PERIOD OF THE OTTOMAN EMPIRE

THE SULTANS of the Ottoman era had proclaimed themselves the spiritual leaders of the entire Moslem world. The government of the Empire took its juridical basis from the Islamic Code and principles of living from Shariat, the Sacred Law of Islam. The Islamic Law was defined and explained through theological sciences. The right to express opinions on matters of jurisdiction and religion, that is on questions dealing with the civil law and conjugal and other private relationships, was granted to those who possessed a thorough knowledge of these sciences.

Teaching of subjects dealing with the Islamic Code and the Shariat was carried on in the Koranic schools called maktabs and madrassehs. Instruction was mostly religious in nature. The elementary one-room schools, maktabs, and theological seminaries, madrassehs, were provided by charitable persons and were attached to masjeds or mosques, which were supported by "wakf" donations made by the Board of Pious Foundations. In these schools, Moslem children were taught to read the Koran, the Moslem holy book which was in Arabic, without understanding the meaning. Reading and writing of the Turkish language were not considered important. Madrassehs, or the theological seminaries, were almost the only institutions of secondary and higher learning. The principal course of study in the madrassehs included Arabic grammar and syntax, rhetoric and style, logic, theology, metaphysics, and subjects relating to the Koran and Islamic traditions (Hadiths) and to the Islamic jurisprudence. During certain periods some courses in science, mathematics, and medicine were also added to the curriculum of these schools. Arabic books were used a great deal. The lower

classes trained teachers for elementary schools and priests or khatibs, kadis, muftis, or imams for the mosques. The higher classes prepared judges, jurists, and teachers and other specialists for the seminaries. The largest seminaries were located in the capital city of Istanbul.

Madrassehs, which were the true source of culture and science of the old Islamic civilization, were established in all the Islamic countries. The most famous among them were those founded in great Moslem centers such as Baghdad, Istanbul, and Cairo. In the beginning of the thirteenth century, when the Ottomans founded their autonomous government, one of their first tasks was to build madrassehs which would train muftis and kadis to represent the law and the Shairat of the Ottoman Government. High standards of scholarship were the marked characteristics of these early madrassehs or theological colleges. Methods of thinking, learning, and teaching were based almost entirely on the principles of the classical works of the old teachers. The Koran was the basic undisputed source of all knowledge. In fact any knowledge not contained in the Koran was not supposed to be worth learning. The language of the Koran, Arabic, was the principal language and radically different from the national Turkish language. Persian was taught as a literary language. A few children were taught to read and write in Turkish. These madrassehs had nothing in common with the national sentiment. The daily rituals in madrassehs or at home indoctrinated all the people to be Ummet or true believers. There was no bond of nationality. Regardless of their country of origin, all the believers or Ummet were part of the whole group of Moslems.

During the old Ottoman Empire there was another kind of institution which in a way supplemented the madrassehs. This was known as "tekke." The tekkes were schools of religious mysticism. They were established by people of various sects and were regarded as a sort of cultural institution. These schools, however, degenerated rapidly.

All the madrassehs and the small district schools were connected with the muftis and consequently with the Shaikhul-Islam, who was the religious representative in Padishah's or the king's cabinet and was next in power after the grand vizier, who was called Sadrazam. The madrassehs prospered and flourished soon after Sultan Mohammed captured Istanbul and the city was transformed into a center of knowledge and science, not for Turkey alone but for the whole Moslem world. Several madrassehs built around large mosques offered different branches of study. These schools improved immensely during the reign

of Suleiman the Magnificent. Lawyers who practiced in cities extending from Basra to Budapest were graduates of madrassehs. Instruction was based almost entirely on oral traditions. Teachers used deductive methods. By the middle of the seventeenth century these schools had lost their vitality and were subject to severe criticism. The elementary schools, which were usually located next to madrassehs, were in the hands of poorly prepared teachers who were graduates of the madrassehs. The elementary schools offered nothing more than a simple form of reading and writing and a few principles of religion. There were no secondary schools between the primary or elementary school and the madrassehs. In all of these schools the few books they had were in Arabic.

### WESTERN INFLUENCE ON EDUCATION

During the seventeenth and eighteenth centuries, the repeated defeats of Ottoman armies on the one hand and the progress achieved in Europe in war tactics on the other had forced some Turkish statesmen to think about reforming the army through adopting European war techniques. As a result of a demand by the army for an artillery school, a separate school for this purpose was founded in 1795. This was the first school independent of the madrassehs and was named "Muhandishane," or engineering school. Later military demands led to the establishment of a school of medicine in 1827 and a school of military tactics in 1834. In 1858, the School of Political Science was founded in order to train the officials in government administration.

Although schools for higher education were being established under high sounding names after 1795, elementary education was left in its primitive stage and there were no secondary schools at all. It was not until 1839 that reforms in the elementary or primary education were gradually introduced. New schools, elementary and secondary, under the name of rushdiah, were slowly created which were independent of madrassehs. Finally, in 1869, the whole organization of public education was put under a code of general education. New schools were established. However, a constant struggle was carried on between the supporters of the old and the new schools. In a way, the new schools were superimposed on the old schools. Education was made compulsory for boys from the age of 6 to 11 and for girls from 6 to 10. There were lower and higher primary schools. The latter were organized in towns having more than 500 houses. The course in these schools extended over 3 years, and the students were awarded certificates after passing an examination. These certificates permitted the

pupils to continue their studies in the secondary schools. The traditional maktabs and madrassahs still existed in many sections of the country.

Before World War I, there were also a number of foreign schools, located mostly in the larger cities, which represented various school systems such as French, German, Italian, Austrian, British, and American. Schools of Christian and Jewish minorities followed the educational pattern of Greece, Bulgaria, or France. In general the present educational program is paradoxically a combination of the French, Anglo-Saxon, Russian, and German ideas and principles, with French still predominating.

## EDUCATION UNDER THE NEW REPUBLIC

The powerful clergy, who controlled the madrassahs and the people in Turkey, were gradually losing the confidence of their ardent supporters. The fall of the Ottoman Empire at the end of the first World War and the foundation of the new Republic brought into bold relief two important factors necessary to the existence of the new Turkish nation. The new leaders realized that to modernize Turkey along Western lines, religion must be separated from the state and education must be made universal. Through religion and control of education, the old Ottoman Empire had ruled the people. The new Republic used the same instruments and strengthened the nation. The educational policy of the country was changed and designed to reach all classes of people. The power of Islam was taken away from the state. The caliphate was abolished, and western codes of law were adopted. The school system was so established that children of all citizens from all walks of life were given equal opportunity to attend schools of general knowledge, culture, and technical training. Students of exceptional ability who were able to pass competitive examinations were given scholarships which included board, clothing, and other necessities of life.

The new Republic intensified its efforts to find ways and means to abolish illiteracy. The old Arabic alphabet was discontinued and instead the Latin alphabet was introduced. The Government established village institutes to encourage adult education and train leaders for the villages. Every year new schools were opened, and new Turkish teachers trained either in Turkey or abroad were installed in all parts of the country. Religious teachings were abolished in the school. A principle of unity was introduced in the public instruction of the new Republic. Public education was made the responsibility of the state.

and was made compulsory. Today education in all primary, secondary, and higher schools, including all the vocational training institutions, is free. Only in some colleges and vocational schools students coming from well-to-do families pay for their board and lodging. In contrast with the past, when boys and girls could not intermingle and women were considered as harem property, all the primary, secondary, and higher educational institutions are now coeducational. All forms of corporal punishment are absolutely forbidden and punishment today is never inflicted upon the student in public. All cases of disciplinary action and even cases of negligence and laziness remain confidential between the parents and the school administration. The scholastic standing of the student is reported monthly, half-yearly, and yearly. Reports are circulated among the pupils, the parents, and the school administration. It is forbidden to give the students ranks, such as first or second in the class. The distribution of prizes as rewards for good work is also forbidden. The social situation of the student and his parents is known only to the administration and information on the degree of wealth or poverty of a student is confidential.

In various ways students participate in the administration of the school. The student who has been elected to represent the student body in the administrative work of the school enjoys no special privileges or rights. To inculcate the spirit of thrift and an understanding of the value of wealth into students, school officials encourage the organization of student cooperatives, organizations which are conducted by the students themselves. The cooperative organizations in some vocational schools are run more or less on a business basis. The week of January 12 to 18 is celebrated every year throughout the country as thrift week.

During the old Ottoman Empire, the Turkish citizen was either a farmer, a government official, or a soldier. He was not much interested in commerce or economics. Hence, the Empire was practically without any accumulated national capital and national industry. Today trade, industry, and financial matters are important national affairs. Modern Turkey is attempting to give the new generation a sense of business and spirit of thrift, which are important in the practical life of a nation. It is sending gifted students abroad to complete their studies and make observations in administration, technical fields, governmental projects, etc. Before World War II, most of the students who went out of the country to study were sent to European countries, particularly to France and Germany. Today, the majority of them

are studying in the United States, specializing in subjects such as agriculture, economics, electrical engineering, geophysics, mechanical engineering, mining engineering, and telecommunications. In 1952 there were 676 Turkish students enrolled in 120 universities and colleges in the United States.

The impregnating of students with sympathy and affection for the new regime in Turkey has an important place in the present Turkish educational program. At the same time the teaching of prehistoric culture and ancient Turkish history with a patriotic interpretation plays a significant role in Turkey.

## ADMINISTRATION

### THE MINISTRY OF PUBLIC EDUCATION

Today education in Turkey is considered to be a state prerogative and all educational activity in that country is directly under the jurisdiction of the Ministry of Public Education. Although there are certain technical educational institutions, such as those providing military training and tactics and others attached to different ministries, their programs are subject to the approval of the Ministry of Public Education and in the matter of general educational policy, this Ministry has supervisory powers. In fact no school, public or private, whatever its nature, may be established in Turkey without the express authorization of the Ministry of Public Education. All the schools and training courses opened and conducted by provincial and municipal administrations are under the control of the Ministry of Public Education which also dictates the standards of buildings to serve as schools, libraries, and museums.

### THE CENTRAL ORGANIZATION OF THE MINISTRY OF EDUCATION

The central organization of the Ministry of Public Education is composed of the following personnel:

The Office of Undersecretary and the Office of Undersecretary for Professional and Technical Training, the Board of National Education and Training, the Board of Inspectors, the Directorate General of Higher Education, the Directorate General of Secondary Education, the Directorate General of Primary Education, the Directorate General of Fine Arts, the Directorate General of Museums and Antiquities, the Directorate of Technical Training for Men, the Directorate of Commercial Training, the Directorate of Technical Training for Women, the Directorate of Buildings for Professional and Technical

Schools, the Office of Legal Adviser, the Directorate of Private Schools, the Directorate for Physical Education and Boy Scout Organization, the Directorate of Publications, the Directorate of Public Libraries, the Directorate of School Museums, the Directorate of Personnel Affairs, the Directorate of Military Training and Mobilization, the Directorate of Supplies, the Directorate of Files, and the Private Secretariat of the Minister. This entire central organization is immediately under the Superior Council of Education which is composed of the two Undersecretaries, the Members of the Board of Education and Training, the directors of the Departments of the Ministry of Public Education, the presidents and deans of the universities, selected representatives from university faculties, superior schools, commercial schools, lycees, high schools, and schools for arts and trades, delegates from schools administratively attached to the Government agencies, representatives from the Departments of Education and Training of the Ministry of National Defense and of the Office of the Chief of the General Staff; public education inspectors, provincial public education inspectors, provincial public education directors and specialists in public education to be selected by the Ministry. The Superior Council normally meets every third year. It examines and introduces basic programs, regulations, and instructions relating to education and training in general. The resolutions adopted by this Council must be confirmed by the Minister before they can be promulgated.

The Board of Education and Training, consisting of a chairman and six members, is an appointed scientific body which functions as an advisory body in all matters pertaining to educational policy. It concerns itself mainly with the drawing up of school programs for all grades for submission to the Superior Council of Education, expressing opinions on educational legislation or drafting bills or projects of regulations, examining textbooks and advising on measures designed to develop and strengthen national education, and informing the public on the basis of republican principles.

The Directorate General of Fine Arts exercises supervisory powers over dramatic, musical, and plastic arts in educational institutions and also has control over such activities throughout Turkey.

## *Elementary Education*

### PUBLIC SCHOOLS—RURAL AND CITY

FROM THE FOUNDING of the Republic education has been the guiding spirit of the whole reform movement. The leaders were firmly convinced that only through education could the Turkish citizen fully enjoy the freedoms and the privileges of a civilized society. The Government was determined to abolish illiteracy. With this objective in mind, it was made a national policy to establish a school system which would give equal educational opportunity to children and adults from all walks of life. Education was made free at all levels—elementary, secondary, and even college or university.<sup>1</sup>

Elementary education in Turkey was made compulsory by Article 87 of the Turkish Constitution, which states "Elementary education is compulsory and free for all Turks in public schools." In view of the insufficiency of funds and teaching personnel, however, this obligation remains theoretical since a great percentage of children of elementary school age (7 to 12) are left virtually without schooling.

Application for admission to public schools in all parts of the country exceeds the capacity of the schools. For this reason, in spite of reduced funds, the Ministry of Education has sought every possible means to admit a greater number of applicants each year to its institutions. In addition, the Army lends the Ministry a helping hand in its campaign against illiteracy. Military service is compulsory and extends over a period of 18 months. During this period, soldiers receive, besides the regular military drill and training, instruction in reading and writing and in such general subjects as civics, hygiene, and arithmetic.

The country is divided into 63 vilayets or provinces and each vilayet is administered by a vali (governor) appointed by the Minister of Interior. There are 820 towns and 40,000 villages. Under a new law, most of the villages and certain towns build their own schools and the Government supplies teachers to such schools.

Elementary education is divided into a 2-year lower and 3-year upper cycle, making a total of 5 years. Generally students who are successful are expected to complete their elementary or primary education at

<sup>1</sup> The Turkish Constitution, Article 80.

about 15 years of age. There are no regular kindergartens or nursery schools. Elementary education forms the foundation of the educational system. All elementary schools are coeducational.

### CURRICULUM

The curriculum of the lower cycle includes the following subjects: Turkish language, reading, writing, arithmetic, geometry, drawing, singing, and physical education. In the second cycle or upper 3 years, the course of study includes Turkish language (reading, grammar, composition, and poetry), history, geography, civics, arithmetic, geometry, drawing, manual work, and physical education.

*Table 1.—Program of studies for village elementary schools*

Subject	Weekly hours of classwork, by grade				
	First	Second	Third	Fourth	Fifth
1	2	3	4	5	6
General science.....	3	3	4	5	5
Turkish.....	10	9	8	5	5
History.....				2	2
Geography.....				2	2
Citizenship.....				1	1
Nature study.....				2	2
Domestic science.....		4	4	1	1
Arithmetic-geometry.....	4	4	4	3	3
Drawing.....	1	1	1	1	1
Writing.....		1	1	1	1
Total.....	18	18	18	18	18

*Table 2.—Program of studies for city elementary schools*

Subject	Weekly hours of classwork, by grade				
	First	Second	Third	Fourth	Fifth
1	2	3	4	5	6
Turkish.....	10	7	7	6	6
Geography.....				2	2
History.....				2	2
Citizenship.....				2	2
Nature study.....				3	3
Domestic science.....				2	2
General science.....	5	6	6	4	5
Arithmetic-geometry.....	4	4	4	2	2
Drawing, handcraft.....	4	4	4	1	1
Writing (composition).....		2	2	1	1
Music.....	1	1	1	1	1
Gymnastics.....	2	2	2	1	1
Total.....	28	28	28	28	28

There are special 3-year elementary schools in rural areas. Because of the differences in environment of the rural areas, a variety of

methods and programs of studies are employed. No definite time schedule is laid down for village schools, and teachers have freedom in preparing their own programs of study to fit the seasonal occupations of the people. Rural curriculums include practical work in simple farming. In village schools the number of hours of classwork is 18 a week, whereas in the city elementary schools it is 26 a week.

Until about 1950, in strict adherence to the original reform ideas of the new Republic, the teaching of religion in the public schools was almost completely abolished. Now the Government's policy in this matter seems to have changed somewhat. The Official Gazette No. 7691 of December 25, 1950, reported the following: "the Council of Ministers in its November 4, 1950, meeting adopted the report of the Committee which met at the Ministry of Education for the purpose of examining the program and textbooks of the lessons in religion to be taught in schools and formulating directives to be issued to instructors and it has therefore been decided:

- (1) that religion be taught in elementary schools in order to meet the religious needs of the Turkish children same as in all other fields;
- (2) that the textbooks issued by the Ministry are for the present adequate to meet the requirements;
- (3) that the preparation of a guidebook for teachers would be sufficient;
- (4) that for schools with more than one teacher it would be appropriate to assign the teaching of religion to those teachers who particularly desire to teach such lessons . . . and that parents who do not wish that their children be given lessons in religion be required to inform the school administration in writing at the beginning of the school year and that such children be exempt from these lessons and examinations.

Such an official announcement denotes a formal affirmation of policy and stresses the importance attached to this matter. There is considerable mixed feeling and opinion about this issue.

### METHODS OF INSTRUCTION

In 1924, during the most critical reorganization period in Turkey, the country was fortunate to obtain the counsel of John Dewey, one of the greatest educational philosophers of the era. Dr. Dewey spent a few weeks there and after considerable consultation, made several suggestions, one of which dealt with the construction of an elementary school program of study based on his philosophy that knowledge of the world around the child and of human relationships should motivate the curriculum. The specialists in the Ministry of Education were greatly stimulated and influenced by his ideas, and the famous "project method" was immediately tried out in many schools. Later the new curriculum based on this philosophy became mandatory.

In the last 25 years, elementary education in Turkey has made marked improvement in quality. The school atmosphere is entirely different now from what it used to be. Although classes are crowded, children attend their schools willingly and pass a happy time there. Teachers are doing their best to teach their pupils in a manner best suited to their individual interests and dispositions. The curriculums, which have been revised several times, bear all the signs of the modern conception of education.

During the first years of elementary school, the teaching follows what may be described as a kind of project method. The children are encouraged to attack problems in their daily lives and try to give a meaning to them in the light of modern science and culture. Thus reading, writing, arithmetic, music, and art become purposeful activities. Teamwork, cooperation, group study, and exploration of the local environment are encouraged in connection with all school activities.

The last 2 years of the elementary school assume a somewhat independent character in the different fields of learning, such as Turkish history, geography, citizenship, nature study, mathematics, homemaking, music, and physical education. The field of international relations is not neglected. The writer visited several elementary schools. A large number of art exhibits which were prepared by the pupils portrayed the United Nations Organizations, the Korean War, and the plight of refugees from USSR, and other international problems.

Although progress is undoubtedly being made every year, the funds available for educational purposes are diminishingly small in comparison to actual needs and impose serious limitations. Combating the problem of illiteracy and providing an adequate public education for all her citizens in the face of lack of funds have been exceedingly difficult for the Government. As table 3 indicates, there has been a steady increase in the number of elementary school teachers and in enrollment. This may be explained by the fact that practically all the burden imposed by the reduction of funds falls on the teaching personnel. Promotions are kept to the minimum, vacancies are not filled, and the work is distributed among the existing staff, identical courses are combined, and operating and maintaining expenses are reduced to the minimum. These measures, necessitated by the curtailment of funds, naturally have a bad effect on the desired quality of education. Classes in almost all the elementary schools are packed to the limit, and teachers are overburdened with work and have to content themselves with low salaries. During the school year 1949-50, there were 17,050 elementary schools with an enrollment of 1,652,452 and 33,729 teachers. Since 1923, the start of the Republic, approximately 10,500 new elementary schools have been established.

*Table 3.—Development of Turkish public and private elementary schools: number of teachers, pupils, and graduates, 1936-49*

School year	Teachers		Enrollment		Graduates	
	Men	Women	Boys	Girls	Men	Women
1	2	3	4	5	6	7
1936-37.....	9,805	4,972	473,730	240,468	29,435	12,773
1937-38.....	10,483	5,292	509,949	264,742	33,650	14,698
1938-39.....	11,607	5,513	547,180	286,456	39,811	16,874
1939-40.....	12,306	5,757	619,246	285,893	49,262	20,374
1940-41.....	14,583	6,981	661,279	294,678	71,948	25,888
1941-42.....	15,656	6,184	660,468	289,374	77,429	26,313
1942-43.....	15,224	6,411	649,471	290,940	76,201	26,367
1943-44.....	15,865	6,532	680,384	315,615	90,197	32,522
1944-45.....	16,845	7,142	804,120	442,696	91,139	33,059
1945-46.....	19,736	7,581	865,860	491,880	107,506	41,378
1946-47.....	22,208	7,908	899,266	514,777	113,083	47,486
1947-48.....	23,743	8,338	926,440	521,053	106,888	42,980
1948-49.....	24,503	8,684	938,534	520,848	120,977	50,293

N.B. The school statistics presented in this bulletin are official calculations of various ministries in Turkey, but because of the paucity of available statistical data and of the different methods used in their preparation they cannot be accepted without reservation. The writer found a number of discrepancies in data which were presumably from original official sources. Most of the figures presented in the bulletin should be regarded as approximations or estimates.

## EXAMINATIONS

Promotion from one class to the next is dependent upon the monthly and yearly examinations taken by the pupil, conditions of which are fixed by the General Regulations of Schools approved by the Ministry of Public Instruction. Graduation from elementary school depends on the results of the state examinations, which crown the work of all Turkish institutions. The Regulations on State Examinations provide that the elementary examination be held once a year about May or June. The boards of examiners are appointed by the Ministry or its representative from among teachers of the middle schools who have had considerable teaching experience. The examination consists of two parts: written and oral. The subjects of examinations are as follows: Turkish language, history, geography, arithmetic, geometry, general science, domestic science (for girls), drawing, composition, physical education, music. Only those students who have passed the written examinations may take the oral. Pupils who have obtained at least 50 percent of the maximum grades are recommended for the (*ilk okul diploması*) elementary school certificate, which gives the holder the right to enter either a middle school or a vocational school.

## TEACHERS

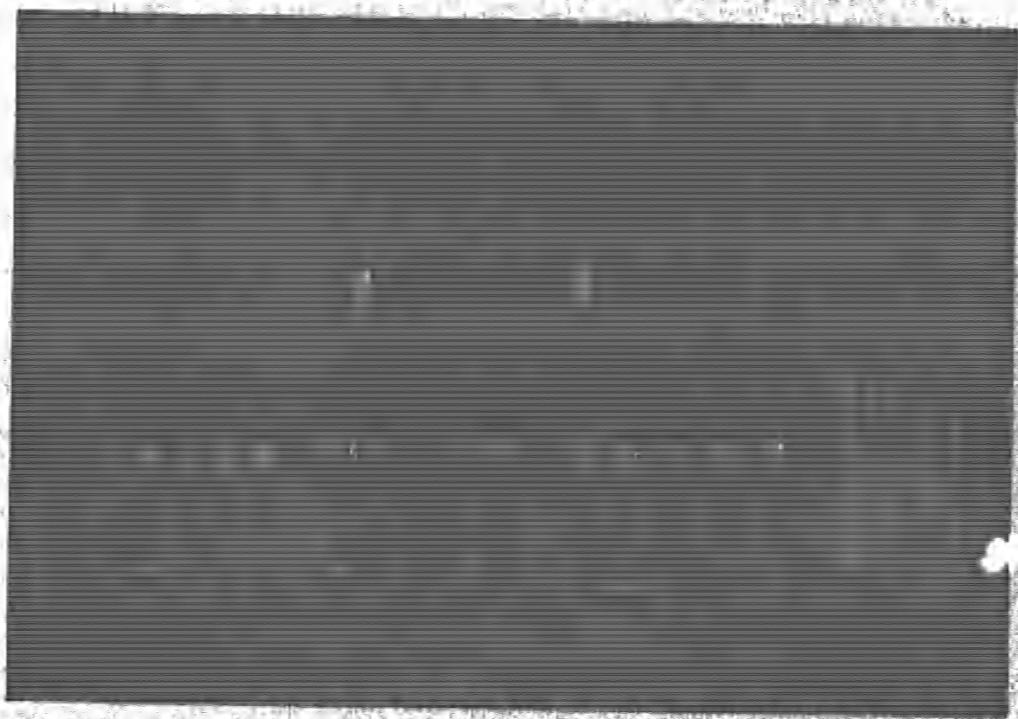
Teachers for elementary schools are trained in normal schools for a period of 5 years. The level of these schools is slightly above that of

a middle school but below the standing of a lycee. Normal schools are free and provide free board and lodging. The subjects offered are pedagogy, psychology, agriculture, and practical training in teaching.

Lycee graduates, after passing an examination in professional subjects, and graduates of middle schools, upon passing an examination in subjects taught in the last 2 years of normal schools, may also be authorized to teach in elementary schools. Special courses are offered each year to prepare such candidates for the profession of teaching. During the past 15 years, the Ministry of Education has trained or has provided for the training of some 30,000 elementary school teachers and instructors for active duty, both in towns and villages.

### BUILDINGS

The majority of public elementary school buildings, particularly in the rural areas, are rented buildings which have been adapted for use as schools. Generally a small courtyard is provided to be used as a playground. In a number of the public elementary schools the writer visited, the lighting and ventilation were very good, but the sanitary facilities in many of these buildings are, as a rule, not adequate. The school buildings in the cities are usually two stories high. The Government has started an extensive school building construction program, and a number of buildings under construction were visited.



*Elementary school in Bursa—one of the many well-planned modern school buildings which are gradually being built in Turkey.*

The buildings required for the elementary experimental schools in the villages are erected by the farmers themselves, with the help of the Government and according to plans supplied by the Ministry of Education. Farming land is allotted to these schools for practical work and cultivation. The Ministry of Agriculture furnishes tools, seeds, and livestock to help in practical farming. During the school year 1949-50, 1,372 new schools and 399 houses for teachers were built in the villages.

#### ADMINISTRATION

Although primary or elementary education is essentially a provincial responsibility, inadequate revenues compel the provincial administration to lean heavily on central State assistance. Consequently, provincial administrative jurisdiction over primary education is nominal, and the Ministry of Public Education maintains thorough control over all such instruction. The children of Turkish citizenship are not allowed to receive their elementary education in foreign schools operating in Turkey.

Since primary schools are administered and maintained by local authorities, allotments are provided for primary education in the budgets of the provinces.

#### SPECIAL SCHOOLS FOR TRAINING VILLAGE INSTRUCTORS

The Ministry of Education, facing the problem of providing qualified teachers for most of the 40,000 villages, many containing fewer than 400 inhabitants, has inaugurated a plan for giving 1-year courses to qualified farmers in order to prepare them as instructors. For this purpose, the Ministry selects farmers who own the land they farm, have some education, and have completed their military service. These courses are generally held on suitable farms. The program of study is arranged so that the students work in groups of 10 under the supervision of a teacher. They receive instruction in cultural and theoretical lessons in the morning and devote the afternoon to practical farming, building, and handicraft. The curriculum includes lessons in reading, writing, citizenship, and general science. The instructors also conduct evening classes for adults to discuss problems of national interest. Those who are successful in their examinations at the end of the course are appointed as village instructors, generally in their own villages. This experiment, which was started in 1955, has proved to be very successful.

## VILLAGE INSTITUTES

Turkey is still mainly an agricultural country. To establish schools in the rural areas and provide at least some elementary education for the inhabitants of some 40,000 villages scattered across the nation has been a major program for the new Republic. In addition to the village elementary schools, the village institutes are playing an important role in the education of children in the rural districts. The urgent problem which faced the Ministry of Education was not due simply to lack of suitable school buildings or classroom facilities, but to a shortage of qualified teachers as well. The village institutes were started about 11 years ago, with the principal objective of preparing village school teachers. Promising graduates of village schools are given 5 years of professional training to prepare them for employment as village school teachers. It is the hope of the Ministry of Education that in time they will replace the village instructor courses.

There are 21 such village institutes, and the Government is planning to have one village institute for each vilayet or governorship district. There are more than 15,000 students enrolled in the village institutes. Thus, far, 9,400 have completed their course and are now on active duty as village teachers. The village institutes also offer special courses for preparing health officers, and in addition to the 9,400 graduates, these institutes have trained 900 as village health officers and approximately 8,000 as mid-wives.

## CENTER OF SPECIAL ACTIVITY

The village institutes operate as centers of education and culture from which ideals and practices of high standards of living spread throughout the rural population. In addition to their regular curriculum, these schools carry on large-scale community projects directed at the improving of living conditions in the area. The village institutes directly and indirectly contribute to the health and sanitation of villages around them. This is accomplished by extending aid to the sick, combating contagious diseases, opening canals to drain the marshes, bringing water in pipes or especially constructed ditches to the villages, building new roads and repairing the old ones, etc. The school facilities, such as workshops, libraries, and playgrounds, are open to villagers and farmers. Through such cooperation, the school in return benefits greatly in sharing the experience of the farmer and supplying the institute with expert craftsmen as teachers for the improvement and preservation of the regional crafts and trades.

## PROGRAM OF STUDY AND INSTRUCTION IN THE VILLAGE INSTITUTES

Together with such subjects as Turkish, social studies, science, mathematics, and art, students receive practical training in agriculture, animal husbandry, trades, and industrial arts (table 5). Through a guidance program students are usually able to choose their career by the end of the third year. Those who show ability and aptitude for teaching are given courses to train them as teachers in the 5-year rural elementary schools. Usually the student becomes a teacher in the village where he originally came from. Some of the students receive instruction in public health and eventually are assigned as the village public health officer or midwife. Others specialize in various trades or become expert farmers and practice their trade or farm in their home villages or in villages where their knowledge and skill are needed. Often the institutes maintain refresher courses to help their graduates study and solve their individual problems and improve their methods of teaching.

The writer visited Hasanoglan Koy Enstitusu (Hasanoglan Village Institute), which is about 40 miles from Ankara. The building of this school was undertaken 10 years ago, when a group of selected students from the nearby villages were sent there to accomplish the task of construction under the supervision of several instructors. The Government had appropriated the necessary land for the school. The fascinating story of accomplishing the work is told by photographs which decorate the halls in one of the buildings. The students arrived on the barren grounds with tents, tools, and other necessary equipment. They pitched their tents and started to build the village institute now called Hasanoglan. Today the school has more than 60 buildings, which include a large administration building, classrooms, laboratories, hospital, dormitories, various workshops, and barns. There are large grazing lands for the livestock which belongs to the Institute. There is also a small open-air amphitheater for school plays. All these buildings and other instructional facilities, such as greenhouses, orchards, and beehives, were constructed by the students under the supervision of teachers. The Government merely supplied the necessary material. The school is within walking distance of the village of Hasanoglan.

The school has an enrollment of 665 students with 38 teachers including the administrative staff. Most of the teachers are graduates of Gazi Teacher Training School in Ankara. Four are university

*Table 4.—Development of the village institutes in Turkey, 1943-49*

School year	Number of schools	Number of teachers			Enrollment		
		Men	Women	Total	Boys	Girls	Total
1	2	3	4	5	6	7	8
1943-44.....	18	296	123	418	11,563	1,276	12,839
1944-45.....	20	351	136	487	12,761	1,475	14,236
1945-46.....	20	394	111	505	13,068	1,398	14,464
1946-47.....	20	407	140	547	12,822	1,336	14,158
1947-48.....	20	493	149	642	11,814	1,078	12,892
1948-49.....	21	532	177	709	11,944	778	12,017

*Village Institute, Ankara*

graduates and others are graduates of an agriculture or trade school in Turkey. For a number of years the school was coeducational, but since 1951 the girls have been transferred to a similar school in Izmir. It seems that the village people did not like the idea of coeducation in this type of school. The writer was told that all the other village institutes which were formerly coeducational are now transferring the girl students to Izmir Girls Village Institute. Today, these village institutes, located in different agricultural districts of the country, are better organized and greatly improved teacher-training centers.

Table 5.—Program of studies in the village institutes

Course	Hours per week, by year				
	I	II	III	IV	V
1	2	3	4	5	6
Turkish.....	4	4	4	4	4
General psychology.....				2	1
Adult and child psychology.....				1	1
Education.....				1	1
General educational methods.....				2	1
Special educational methods and practices.....				6	2
Sociology.....				2	1
Educational history and administration.....				1	1
History.....	2	2	1	1	1
Geography.....	2	2	1	1	1
Home economics.....		1	1		
Mathematics.....	5	3	3	3	2
Physics.....		2	2	2	2
Chemistry.....		2	2	1	
Natural sciences.....	2	2	2	2	
School hygiene.....					1
Writing (penmanship).....	1	1	1		
Drawing.....	1	1	1	1	1
Working.....		1	1	1	
Physical education and sports.....	1	1	1	1	1
Music.....	2	2	1	2	1
Military tactics.....			1		1
Home management and child care.....				1	1
Cooperative education and practice.....				6	7
Practical Work with course.....	10	8	9	6	7
Vocational education and shop practices.....	9	7	8	7	8
Total.....	30	30	30	30	30

Table 6.—Budget for elementary school 1945-46 to 1947-48

[In thousands of liras; lira=\$2.80 at official rate of exchange, 1951]

Year	Appropriation	Expenditures		
		Total	Salaries	Other
1	2	3	4	5
TOTAL FOR ELEMENTARY SCHOOLS				
1945-46.....	22,806,364	20,501,389	13,636,771	6,752,618
1946-47.....	44,492,574	41,675,221	26,757,430	12,917,782
1947-48.....	64,888,809	61,878,872	52,017,810	9,856,003
ONE-ROOM VILLAGE SCHOOLS				
1945-46.....	1,952,204	1,894,700	1,404,720	489,960
1946-47.....	4,360,970	4,271,212	2,736,650	1,534,562
1947-48.....	4,328,162	4,161,912	2,913,365	1,238,647
PUBLIC ELEMENTARY SCHOOLS				
1945-46.....	20,281,422	18,142,590	13,103,012	6,040,578
1946-47.....	39,238,008	36,420,595	25,423,881	10,067,014
1947-48.....	38,930,447	36,516,622	48,357,219	8,150,403
PRIVATE ELEMENTARY SCHOOLS				
1945-46.....	572,738	554,000	332,080	222,060
1946-47.....	877,711	954,614	500,408	386,206
1947-48.....	1,280,300	1,205,336	747,396	488,012

## EDUCATION IN TURKEY

Table 7.—Public elementary schools: Enrollment and number of teachers employed, 1943-44 to 1948-49

Type of school by year	Number of teachers <sup>a</sup>						Number of students		
	Regular			Rural agricultural			In school with regular teachers		Total
	Total	Men	Women	Men	Women	Boys	Girls		
1943-44	1	2	4	6	6	7	6	10	12
Total	12,061	21,562	9,000	6,912	6,024	7	6	125,428	98,124
Cities	1,273	8,000	3,718	4,201	4,621	6	6	222,959	131,213
Villages	10,788	13,533	5,262	1,621	6,024	6	115,320	120,426	255,174
1944-45	Total	12,782	24,563	10,769	6,474	7,341	19	664,469	264,559
Cities	1,314	8,231	3,787	4,504	4,621	19	252,720	161,456	71,625
Villages	11,468	16,372	7,222	1,680	7,341	19	411,749	203,103	131,774
1945-46	Total	13,860	26,428	11,975	6,897	7,536	20	724,259	406,462
Cities	1,396	8,532	3,925	4,907	4,621	20	254,372	167,815	414,176
Villages	12,464	17,506	8,030	1,980	7,536	20	469,917	240,644	815,254
1946-47	Total	15,009	29,221	12,567	7,250	8,403	31	750,345	429,601
Cities	1,394	9,265	4,213	5,082	5,082	31	253,968	169,166	465,175
Villages	13,615	19,965	9,244	2,188	8,403	31	501,377	200,436	167,816
1947-48	Total	15,804	31,137	17,387	7,604	8,169	3	786,414	449,147
Cities	1,412	9,700	4,494	5,275	5,275	3	267,761	170,375	423,164
Villages	14,392	21,438	12,893	2,229	6,169	3	540,653	279,772	119,611
1948-49	Total	15,169	29,798	16,867	7,686	8,244	1	810,694	469,112
Cities	1,434	9,703	4,489	5,238	5,238	1	269,861	170,374	423,164
Villages	13,735	19,975	12,412	2,316	8,244	1	547,203	212,728	96,294

<sup>a</sup> Includes independent teaching institutions. \* Includes independent teachers.

# *Secondary Education and Teacher Training*

## MIDDLE SCHOOLS AND LYCEES

THE AIM of secondary education in Turkey has been to prepare students who have completed the 5-year elementary (ilkokul) program of studies for specialized fields offered by the higher institutions of learning. However, the present trend has added an additional purpose to Turkish secondary education which aims at providing special curriculums for those who no longer wish to continue their studies in higher institutions.

### DEVELOPMENT

Before the education reorganization of 1927, there were two types of secondary schools. (a) secondary schools supported by the National Government, and (b) others supported by local government. There were about 21 state or national schools supported by the Government, some of them providing only the middle school program and some a combination of the present middle and lycee curriculum. There were also 30 local schools which were financed by the local government and which offered a program of studies corresponding to the modern middle school curriculum. During the last 75 years of the Ottoman period the French language, French ideals, methods, and standards dominated secondary education. Then during the first World War the German influence expressed itself not only in the 3 German-owned schools, but

*Table 8.—Development of middle schools or junior high schools,  
public and private, 1942-43 to 1949-50*

School year	Number of teachers			Enrollment			Number of graduates		
	Men	Women	Total	Boys	Girls	Total	Boys	Girls	Total
1	2	3	4	5	6	7	8	9	10
1942-43	2,297	1,588	3,885	60,180	34,001	94,181	9,064	8,670	13,834
1943-44	2,224	1,627	3,851	53,314	22,006	75,319	10,008	8,878	14,886
1944-45	1,188	1,674	3,862	49,785	20,675	70,410	8,425	8,378	11,803
1945-46	2,145	1,788	3,931	46,074	19,534	65,608	8,868	8,594	12,369
1946-47	2,120	1,743	3,873	42,307	18,663	60,969	7,457	8,108	10,565
1947-48	2,108	1,826	3,934	41,160	17,933	59,093	7,617	8,227	10,844
1948-49	2,275	1,874	4,149	48,612	17,702	61,314	6,263	8,458	8,701
1949-50	2,389	1,975	4,364	47,689	17,679	65,168	6,104	8,218	11,412

*Table 9.—Development of public and private lycees or senior secondary schools—teachers, students, and graduates between 1936 and 1949*

School year	Number of Teachers		Enrollment		Number of Graduates	
	Men	Women	Boys	Girls	Men	Women
	1	2	3	4	5	6
1936-37.....	844	206	13,407	3,812	1,945	481
1937-38.....	924	240	16,129	4,787	2,683	630
1938-39.....	1,016	313	18,636	5,728	3,279	866
1939-40.....	1,148	370	20,232	6,028	2,699	766
1940-41.....	1,110	434	18,881	5,951	4,000	1,051
1941-42.....	1,090	478	21,450	6,867	3,462	1,026
1942-43.....	1,078	512	21,700	6,263	3,692	1,165
1943-44.....	1,105	589	22,376	6,024	4,122	1,261
1944-45.....	1,028	628	22,083	5,852	4,839	1,313
1945-46.....	1,136	681	20,411	5,104	4,965	1,27
1946-47.....	1,131	740	10,329	5,026	5,054	1,081
1947-48.....	1,101	728	18,457	4,788	4,805	1,288
1948-49.....	1,096	772	17,635	4,465	4,256	1,172
1949-50.....	1,147	784	17,042	4,308	4,500	1,186

also in the methods of administration and instruction in public schools or state schools. One of the old lycees, the Galata Sarai in Istanbul still has a kind of proud glorious memory of the old days when most of its advanced work was conducted entirely in French and when it was the exclusive secondary school located in the Palace grounds for the nobility and princes. The atmosphere of today is very different, for the present-day attitude is intensely nationalistic. These foreign influences on education were particularly noticeable in the Istanbul area.

*Table 10.—Official program of studies of the ortaokul or middle school*

Subject	Hours a week, by year		
	I	II	III
	1	2	3
Turkish.....		5	4
History.....		2	2
Geography.....		2	2
Social studies or civics.....		2	2
Mathematics.....	5	4	4
General science.....	3	3	3
Biology and hygiene.....		2	2
Foreign language.....	5	4	4
Penmanship.....		2	
Drawing.....	1	1	1
Athletics.....	1	1	1
Music.....	1	1	1
General laboratory.....	1	1	1
Military course.....		2	2
Dreamaking and designing.....	2	1	1
Homekeeping <sup>1</sup> .....		1	1
Child care.....			1
Total.....	20	21	21

<sup>1</sup> The last three courses are offered for girls.

## ORGANIZATION

Secondary education comprises two stages: the middle school (ortaokul) and lycee. Students who are planning to proceed to higher institutions of learning must complete both stages, each stage requiring 3 years of study. The middle school, although complementary to the lycee, is a separate unit designed to offer terminal education to students who intend to go to work directly. Graduates of the 3-year ortaokul or middle school are qualified either to enter an unskilled occupation or take vocational courses in vocational schools. Similarly students who have completed the lycee program may enter an unskilled occupation or a technical college to learn a trade. Those students who wish to continue their studies in a higher institution of learning are required to take a state maturity examination. The state maturity examinations are given to students who have successfully completed the 3-year lycee program and passed a final comprehensive secondary examination. A candidate who has completed the preceding program and successfully passed the state maturity examination may enter a university.

The system of coeducation was gradually introduced, beginning in 1926 in cities where there were no middle schools or lycees in sufficient numbers to have separate schools for boys and girls.

In the same year secondary education was also made free. Despite the school building program, which provides for a large increase in

*Table 11.—Official program of studies for the Turkish lycee*

Subject	Hours a week, by year				
	I	II	III		Classical line
			Scientific line	Classical line	
1	2	3	4	5	
Literature.....					
Philosophy and sociology.....		3	3	3	3
History.....					
Geography.....	2	2	2	2	2
Mathematics (includes algebra, geometry, mechanics, trigonometry and astronomy).....	2	2	1	1	1
Natural science.....	5	4	3	2	2
Physics.....	3	2	1	1	1
Physics laboratory.....	1	2	2	1	1
Chemistry.....	2	2	2	1	1
Chemistry laboratory.....	1	2	1	1	1
Foreign language.....	5	5	4	3	3
Physical education.....	1	1	1	1	1
Military course.....	2	2	2	2	2
Total.....	20	20	21	20	

the number of middle schools and lycees, the country still is far behind in being able to satisfy the present demand for secondary education.

### ADMINISTRATION

The middle schools and lycees, or senior high schools, are under the control of the Public Instruction Department of the vilayet or district in which they are located and subject to the Directorate of Secondary Education of the Ministry of Public Instruction at Ankara. All secondary schools follow the same program of studies, except that in the secondary schools for girls additional courses such as home economics and nursing are provided.

### EXAMINATIONS

The students who have completed the 3 years of middle school, (ortaokul) must take a final examination if they wish to have an official certificate of their study. The official middle-school diploma (ortaokulu bitirme diploması) is granted by the Ministry to those who have successfully passed this examination. The examination is given twice a year in June and September and consists of three parts—written, oral, and practical. Generally the student must pass the first part before he may be admitted to the second or third parts.

Once the student has secured the middle-school diploma he is allowed to enter the lycee. Here he must choose his future career because each of the courses offered leads to special institutions of higher learning. The section or line of classical studies or letters gives access to the College of Law and Political Science, to the higher schools of literature and philosophy or history and geography of the teachers colleges or to the college of letters. The section of science leads to the Faculty of Agriculture, School of Medicine, the Military Academy, the Faculty of Science, or the scientific divisions of the teachers colleges.

Ordinarily among the students it is the scientific section that has the greatest attraction, indicating the tendency of the present Turkish youth toward pursuing the scientific studies as opposed to the philosophic and literary studies that were followed in the past.

To advance from one class of the lycee to another requires the successful completion of the lower year, which is shown by the results of quarterly examinations. Both in the middle school and the lycee a report card (calisma karnesi) is prepared for each student. The annual report cards indicate in detail the student's grades for each course, his attendance, and his deportment. These cards are signed by the instructor as well as the principal of the school. Students who have successfully completed the program of studies of the 3-year senior

high school in the field of their options earn the graduation certificate (*lise bitirme diploması*):

Students may then take the final rigid comprehensive baccalaureate examination and obtain State maturity certificates (*Devlet Olgunluk Imtihani Diploması*) granted by the Ministry of Education. Besides the right of entrance to a university, the certificates carry with them certain privileges such as priority for admittance to competitive examinations for scholarships abroad and entrance into Government service.

### TEACHERS

Teachers for middle schools and normal schools are trained in normal schools of junior college level, which comprise the following five divisions: pedagogy, literature, social science, mathematics, and physics and natural sciences. The division of pedagogy, to which graduates of normal schools with a service of 2 years are admitted, provides for a course of study of 3 years. The other four divisions provide for a course of study of 5 years each, the first 2 years being taken up by a combined course. Holders of lycee diplomas may omit the combined course and graduates of normal schools are admitted without examination.

The law provides that the teachers for lycees be recruited exclusively from among graduates of universities or superior professional schools. Such candidates receive their training in superior or higher normal schools.

## VOCATIONAL AND TRADE SCHOOLS

### DEVELOPMENT

In addition to the middle school (*ortaokul*) and senior high school (*lycee*) of general education, there are trade or vocational schools and technical, agricultural, and professional schools under the jurisdiction of different ministries to train personnel, such as naval, military, air force, and post office officials; policemen and court clerks. Vocational education was not given any importance in Turkey until about 1913. Prior to that the so-called industrial schools offered only courses in shoemaking, tailoring, typesetting, and a single curriculum aimed at training craftsmen for various local industries. By a law passed in 1913, the funds to maintain trade schools were included in the budgets of the provinces. Each province prepared its own curriculum for the particular trade school it subsidized. Therefore, there was no uniformity in the program of studies of these early vocational schools,

and in fact they did not meet the pressing need for technical personnel in a country which was rapidly developing its industry. During 1924, 1925, and 1926 surveys were made to determine how these different existing trade schools could be reorganized and also to find out what type of vocational schools were needed by the country. One of these studies was made by John Dewey, one by a German from the Ministry of Commerce, and one by the Director General of Technical and Vocational Education of Brussels.

In 1927 the General Directorate of Higher Education was reorganized and its name changed to the General Directorate of Higher and Vocational Education. From then on all the vocational schools have been placed under the Ministry of Education.

### BASIC PLAN

Soon after the reorganization of 1927, the curriculums of the existing trade schools were unified and the course was extended to 5 years. In 1930, Professor Jung, a German specialist, was invited to make a study of the existing vocational schools. As the number of vocational schools increased, it was believed that the schools should be supervised by a separate division in the Ministry and by an act of 1933 the Department of Vocational and Technical Education was established. The curriculum construction for the vocational schools was still an important problem. In 1934, upon the proposal of the Ministry of Education, an Inter-Ministerial Committee prepared a basic plan. The report of this Committee recommended the following types of vocational schools:

Apprentice schools for training apprentices to work in factories, privately owned workshops and other industrial establishments.

Evening trade schools intended to help increase the skill and knowledge of those craftsmen who have not had the opportunity to go through a trade school, having learned their trades as apprentices.

Mobile and temporary courses for those engaged in rather primitive local trades intended to increase their knowledge as well as help in developing their trades.

Middle vocational and trade schools to train skilled workers for the existing and projected factories as well as technicians to be employed in public works projects. This was to be accomplished by increasing the numbers of the already existing schools and widening their scope.

Technical schools to prepare foremen and electricians needed in factories and public works projects and technicians to act as links between engineers and skilled workmen.

Polytechnics or higher technical schools to train civil, mechanical and military engineers urgently needed by the country.

## SCHOOLS FOR MASTER BUILDERS

The aim of master builder schools is to train builders needed by the municipal authorities in the reconstruction of the towns. There are two schools of this type, each offering a 1-year course, one in Ankara and the other in Istanbul. Graduates of building institutes are admitted. Teaching starts on the first Monday of November and ends on May 30 with schools closed during the month of January. Twenty weeks of the course are spent in classrooms and the remaining 8 weeks in practical work.

The program of study for the master builders course follows:

Subject	Hours a Week	Subject	Hours a Week
Turkish	2	Roads and bridges	2
History	2	Topography	4
Geography	2	Technical drawing	4
Building	4	Installations	2
Citizenship	4	Surveying and planning	4
Civics	4	Military studies	2
Construction	8		

The graduates of these institutes are employed by municipal authorities in preparing maps and constructions, issuing building permits, and examining buildings.

## BUILDING INSTITUTES AND MIDDLE-BUILDING SCHOOLS

The building institutes and middle-building schools have been established to train skilled workers capable of building inexpensive dwellings. These schools are of two kinds: middle-building schools and building institutes. The former offer a 3-year course and the latter a 5-year course.

Elementary school graduates between the ages of 13 and 17 are admitted to both schools without an entrance examination. Graduates of the middle-building schools are eligible for admission to the fourth year of the building institutes. Of the 8 hours of daily program, 4 hours are used for theoretical study and the remaining 4 are spent in practical work.

Building institutes have the following departments:

1. Building (house and carpentry)
2. Bricklaying and masonry
3. Plastering
4. Stone carving
5. Central heating, sanitary installation.

In addition, there are ceramics departments in the Istanbul and Ankara building institutes.

The students select the trade during their first year. During the third and fourth years, candidates have to pass special examinations on the courses taught. A student can fail only once in a certain course. Certificate of graduation is given to those who have completed the required course of studies in either school. Graduates of middle-building schools may either leave for employment or continue their studies at the building institutes. Those who have successfully completed their course of studies at the building institutes may go to the higher technical schools or technical teacher-training colleges for men. The building institutes also offer special construction courses for high-school graduates who wish to learn a trade.

There are now six building institutes (combined with middle-building schools located in the towns of Adana, Erzurum, Istanbul, Kayseri, Rize, and Ankara.

The boys' trade schools and the boys' trade institutes attempt to train skilled workers required for the growing industry. The boys' trade schools admit elementary school graduates between ages 13 and 17 and offer a 3-year course. The boys' trade institutes have a 5-year schedule. Daily work in the schools consists of 8 hours, 4 hours practical and 4 hours theoretical. Teaching starts on November 1 and ends May 30. The months of June and September are wholly devoted to vocational training. Whenever possible, students are sent during these months to work for other establishments.

The first-year students in the boys' trade schools receive instruction in job planning, metal working, and carpentry. This part of the program is intended to help the student make a choice of trade in which to specialize. Vocational selection is done during the first week of the second year.

The schools are gradually introducing psychological tests to determine the aptitude of the candidate. Students take special examinations during the third and fifth years. The students who successfully pass the third-year examinations receive the boys' trade school diploma, and those who pass the fifth year receive the trade institute diploma.

#### DEPARTMENTS OF TRADE SCHOOLS AND PROGRAM OF STUDIES

These trade schools have the following departments: job planning, precision work, metal working, casting, modeling, engine workshop, technical drawing, electricity, telegraphy, telephony, radio, carpentry, musical instrument making, textiles, and printing. There is a special

department for the benefit of those high-school graduates who desire to learn a trade. High-school graduates admitted to special departments are offered a 2-year course, and they have the same trade status as graduates of boys' trade institutes. All the trade schools have departments of planning, metal working, and carpentry. Others may have two or more of the other departments, depending upon the local need.

Plans are also under way to revive the art of jewelry making which was well known in Turkey in the olden days.

*Table 12.—Program of studies in the boys' trade schools*

Subject	Hours a week, by year				
	I	II	III	IV	V
1	2	3	4	5	6
<b>REGULAR:</b>					
Turkish.....	3	3	3	2	2
Civics.....			1		
History.....	1	1			
Geography.....	1	1			1
Arithmetic and algebra.....	3	3	3	3	
Geometry.....	2	2	2	2	
Bookkeeping.....					1
Physics.....		2	2	1	
Chemistry.....			1	1	
General mechanics and resistance of substances.....				3	
Technical drawing.....	8				
Hygiene.....			1		
Law.....					1
Physical education.....	2	2	1		
<b>OPTION:</b>					
Applied mechanics.....					4
Practical electricity.....			1		
Vocational drawing.....			6	4	4
Apparatus and implements.....		1	1		
General technology.....		1	1	1	1
Vocational technology.....	2	2	2	2	2
Practical work.....	1				
<b>Total.....</b>	<b>23</b>	<b>24</b>	<b>24</b>	<b>21</b>	<b>18</b>

### ANKARA CHEMICAL TRADES INSTITUTE

The Ankara Chemical Trades Institute admits students who have completed their first-year work in the trade schools. It offers a 5-year course in general and industrial chemistry which is in addition to the courses taught in boys' trade institutes. Laboratory work of 10 to 22 hours a week corresponding to vocational training is also included in their program of work. Instruction in lead casting, metal working, and welding is also given. In the third, fourth, and fifth years students have a period of practice in factories during June and September. Graduates of the Chemical Trades Institute schools are employed in chemical laboratories as helpers to technicians.

Table 13.—Program of studies in the Chemical Trade Institute

Subject	Hours a week, by year				
	I	II	III	IV	V
1	2	3	4	5	6
Turkish.....	3	3	3	3	2
Civics.....					
History.....	1	1	1		
Geography.....	1	1			
Arithmetic and algebra.....	4	3	3	2	1
Geometry.....	2	2	2	2	
Bookkeeping.....				1	
Physics.....		4	4	3	3
General chemistry.....		4	4	3	3
Industrial chemistry.....		4	4	5	5
Botany.....		2	2	4	3
General mechanics.....				3	
Vocational drawing.....		4	3		
Laws.....					1
Hygiene.....			1		
Physical training.....	2	2	1		
Planning and metal working.....		8			
Lead working.....			4	4	
Oxygen and electric welding.....				4	4
Glass working.....			4		
Workshop planning, iron working and carpentry.....	23	10	12	12	22
Laboratory.....					
Total.....	36	44	44	43	41

### EVENING TRADE SCHOOLS

There are a number of trade schools with a 5-year course which is entirely practical. Primary school graduates between the ages of 13 and 17 are admitted to these schools. The practical schools have the following trade departments: planning, metal working, carpentry, founding, machine engineering, and modeling.

Technicians who have had no formal education are provided with the opportunity of obtaining vocational instruction in the evening trade schools. Teaching in these schools starts after 6 p.m. The students are taught in workshops, and those who lack general education receive instruction in general arithmetic, geometry, citizenship, and Turkish, in addition to vocational training.

Teaching in each department extends over 2 years. Attendance is compulsory. Teaching starts on November 1 and ends on the first of May. Those who fail to attend 2 or 3 classes and receive an average of less than 5 grade (maximum is 10) have to repeat the year's work.

At present, evening trade schools are operating in Ankara, Bursa, Eskisehir, Istanbul, Izmir, Kayseri, and Konya.

### MOBILE BLACKSMITHS' AND CARPENTERS' COURSES

There are also 63 traveling blacksmiths' and carpenters' courses which provide instruction in repairing metal agricultural implements, casts, and so forth for villagers in the rural areas. Every villager who is above 13 years of age and who has completed his elementary edu-

tion may be admitted. The courses are under the supervision of local Directorates of Education and are not generally given for more than a year in the same village. If, however, the demand is large, the course may be repeated for one more year.

Sports and social activities are greatly encouraged in all the mobile schools. Committees have been organized to promote sports, school cooperatives, dramatics, health, and sanitation.

There are also a number of girls technical institutes, the aim of which is to train Turkish women to become good house managers and to make their homes more comfortable and better organized. At the same time they are taught a trade to enable them to make a living when necessary.

Girls are taught not only subjects of general education but also subjects of practical value, such as sewing, cutting, fashions, embroidery, decorative drawing, child care, hygiene, cooking, and house management. There are two sections, one of 5 years for elementary school graduates, and one of 2 years for the graduates of the ortaokul or middle school. In the former section the instruction is both theoretical and practical, while in the latter section all courses are practical.

#### *ISTANBUL TEKNİK OKULU (THE ISTANBUL TECHNICAL SCHOOL)*

The Istanbul Technical School was started by the Ministry of Public Works in 1937 in the Yildiz Palace at Istanbul. The purpose of the school is to train assistant engineers and technicians with wide practical knowledge in the fields of industry and construction. Until 1941 this institution was administered by the Ministry of Public Works, but in that year it was transferred to the Ministry of Education.

*Development.*—Previously both departments of this school, the one training assistant engineers and the other technicians, admitted students who had completed the ortaokul or middle school. After several reorganizations it was finally decided to create two departments, the Engineering and the Technical.

The Engineering Department offers a 4-year program and contains the following sections: civil, mechanical, electrical engineering, and architecture (tables 14, 15, 16). The Technical Department offers a 2-year program and has civil and mechanical engineering sections (tables 17 and 18).

*Admission.*—Today only the students who have passed the lycee matriculation examinations are admitted to the Engineering Department. They must also pass a special entrance examination. Generally, students from lycees prepare themselves for the entrance examination by learning a trade in the men's evening trade schools or in a private workshop as trainees.

The Technical Department accepts its candidates from the graduates of the various trade schools or institutes. These candidates must pass entrance examinations only in mathematics. The entrance examinations are held in the school during the first week of October. The school year in both departments is divided into 2 semesters of 16 weeks each.

*Examinations.*—There are three kinds of examinations: (1) special examinations held twice a year, one at the end of the twelfth week of the first semester and the other at the end of the eighth week of the second semester; (2) occasional tests given without previous notice; and (3) final examinations held twice a year in the presence of officially appointed examiners. Those who have completed the second year of the Technical Department successfully are allowed to enter the third class of the Engineering Department.

Students in the first and second year of the Engineering Department are under obligation to receive practical training for 36 days during the summer vacation. Those attending sections of Civil Engineering and Architecture work in the building projects, while those attending mechanical and electrical engineering courses work in factories and workshops. The practical phase of the study in all sections in both departments is greatly emphasized.

*Laboratories and machine shops.*—The school has a number of laboratories, including physics, surveying, topography, chemistry, and electricity and work laboratories. The tools and machines used in many of the laboratories are manufactured in the boys' trade institutes. The electrical laboratories and machine shops are not adequately equipped.

During the school year 1948-49, there were 89 teachers and 230 students, 119 boys and 111 girls in the Technical Department. The Engineering Department had 46 teachers with an enrollment of 724. There are no girls in this department.

*Table 14.—Plan of studies for students in the Department of Building Engineering*

[*T=Theory; P=Practical*]

Course	Hours a week, by year and term															
	I				II				III				IV			
	1st term		2d term		1st term		2d term		1st term		2d term		1st term		2d term	
	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
1	2	3	4	6	6	7	8	9	10	11	12	13	14	15	16	17
Arithmetic	1	2														
Algebra	3	3	3	3												
Geometry	2	2	2	2												
Trigonometry	1	1	1	1												
Applied physics	4	4	2	3	2											
Chemistry	3	3														
Language	3	3														
History of the Revolution																
Advanced mathematics																
Economics and laws																
Technical drawing		5		5												
Descriptive geometry	3	2	2	2												
Technical mechanics I		2	1	3	1											
Technical mechanics II									2	1						
Topography					3	3	3	3								
Geology																
Building materials	2	2		2												
Building construction				2					2							
Science of construction	2	2		2												
Constructional planning										3						
Statics I					2	2	2	2								
Statics II						3	1	2	1	2	1	2				
Reinforced concrete									3	1	3	1	2			
Reinforced concrete planning																
Waterworks I										4	2	5				
Waterworks II											4	4	5			
Waterworks planning																
Roads										4	2	2				
Road planning											4	4	3			
Bridges																
Bridge planning												4	3			
Foundation techniques																
Constructional management and working expenses																
Earthworks and tunnels									3	3						
Railroads																
Railroads planning Wood buildings													3	3		
Wood building planning											2					
Steel constructions												2				
Steel constructions planning												2	2			
Mechanical and electrical engineering																
Central heating and air conditioning													3			2
Foundation mechanics													2	2		
Graduation thesis																6
Practical topography <sup>1</sup>																
National defense course	3	2		1		1									2	
Citizenship																2
Town planning																2
Total	28	15	28	15	25	11	20	17	20	7	27	10	25	11	10	10

<sup>1</sup> Taken during the last 2 weeks of the fourth year.

**Table 15.—Plan of studies for students of Mechanical Engineering  
[T=Theory; P=Practical]**

Course	Hours a week, by year and term															
	I		II		III		IV									
	1st term		2d term		1st term		2d term		1st term		2d term		1st term		2d term	
	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Arithmetic	1	2														
Algebra	3	5	3	2												
Geometry	2	2	2	1												
Trigonometry	1	1	1	1												
Technical drawing		5		4			2									
Descriptive geometry	2	2	2	2			1									
Chemistry	3	3	3													
Mechanical technology	3	3	3													
Materials and laboratory	2	2	2				2									
Applied physics	4	4		3	3		3									
Technical mechanics I.		2	1	2	2											
Technical mechanics II.		2		3	3	2	2									
Advanced mathematics					4	3	4	3								
Machine parts and practical construction						5	4	5	6							
Thermodynamics						3	2	3	2							
Water-driven turbines							2	2	1	2	3					
Electrotechnology								2	2	2	2	3	3			
Pumps and compressors									3		1	1				
Boilers and boiler planning									3		1	2				
Factory installations and planning										1	2					
Heating and air conditioning										2						
Cranes and hoists planning										2	1					
Steam engines and planning										4	2	2	2			
Steam turbines and planning										2	2	1	1	2		
Motors and motor planning										2	3	2	2	2		
Laboratory work on machines										4	2	2	2	2		
Refrigerators											3	2	2	2		
Heat economy											2					2
Ted lathe											2					
Calculation																
Engine driven vehicles																
Railway engine sand															1	1
Railway management														2	2	1
Factory organization														2		2
Economics and laws														2		
History of the revolution														2		
Science of construction														2		
A pparatus														2		
Aviation														1		2
Graduation thesis														2		
Language	4		4		4		4		4		4		4		3	0
National defense course	2		2		1		1		4		4		4		4	
Total	27	18	30	11	25	21	23	17	20	12	23	20	21	16	19	19

*Table 16.—Plan of studies for students of Electrical Engineering.  
[T=Theory; P=Practical]*

Course	Hours a week, by year and term															
	I				II				III				IV			
	1st term		2d term		1st term		2d term		1st term		2d term		1st term		2d term	
	T	P	T	P	T	P	T	P	T	P	T	P	T	P	T	P
Arithmetic.....	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Algebra.....	3	3	3	2												
Geometry.....	2	2	2	1												
Trigonometry.....	1	1	1	1												
Technical drawing.....	5		4													
Descriptive geometry.....	2	2	2	2												
Chemistry.....	3		3													
Mechanical technology.....	3		3													
Materials and laboratory.....	2		2													
Applied physics.....	4		4													
Technical mechanics I.....			2	1	2	2										
Technical mechanics II.....			2		3	3	2	2								
Advanced mathematics.....					4	3	4	3								
Thermodynamics.....					2	2	2	2								
Machine parts and practical construction.....									3	2	3	4				
Boilers and heating apparatus and their laboratory.....									3	2	3	4				
Cranes.....									3	3			4	2		
Factory organization.....									3	2			3			
Science of construction.....													2			
Economics and laws.....														2		3
History of the revolution.....																
Language.....	1		1		1		1		1		1		2		2	
National defense course.....	2		2		1		1		1		1		2		2	
Applied electrotechnology.....					3	3	3	3	1	2	1	1	4		4	
Measuring.....						4	3	4								
Measuring laboratory.....									3	2	3	3				
Electrical apparatus.....									6	5	6	3				
Electrical apparatus planning and construction.....													3			
Power distribution and planning.....													3			
Power transmission and planning.....									6	5	6	3	3			
Lighting planning.....										2		2				
Application of electricity in industry.....											3	5	3	5	2	3
High tension technology.....												4		4		
High frequency technology.....												2				
Technology of telephony and telegraphy.....													2		3	
High frequency and telecommunication laboratory.....															3	
Industrial electronics.....															2	
Graduation thesis.....															6	
Total.....	27	18	20	11	24	18	20	18	33	9	24	14	30	9	20	14

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*Table 17.—Plan of studies for students in the Constructional Engineering Section of the Technical Department*

Course	Hours a week, by year and term			
	I		II	
	1st term	2d term	1st term	2d term
1	2	3	4	5
Mathematics				
Physics	6	6		
Chemistry	4	2		
Technical Drawing	1	1		
Mechanics and resistance	3	3		
Topography	3	3	3	3
Earth-works & foundations	3	3	3	3
Building management				
Building materials				
Buildings	3	3	3	3
Building drawing	4	4		
Building engineering	2	2	2	
Reinforced concrete				
Water works			2	4
Roads			4	4
Railroads			4	4
Bridges			3	3
Civics and laws			3	4
Turkish			2	2
Turkish history	3	3	3	3
Turkish geography	1	1	1	1
Foreign languages	1	1	1	1
National defense course	2	2	2	2
Total	38	38	40	41

### ZONGULDAK SCHOOL OF MINING

The Zonguldak School of Mining was established in 1937 by the Mining Controllers' Department, a part of the Ministry of Industrial Development. Under the Act No. 5284 passed in 1949, the school was transferred to the Ministry of Education. The aim of the school is to train technicians for the various mines. The school has two departments, one of them training technicians and the other mining controllers. The period of study in the Mining Technicians' Department is 4 years and in the Mining Controllers' Department, 3 years. Graduates of the middle schools or trade schools are admitted to the Technicians' Department on the basis of a State competitive examination. Graduates of lycees are admitted to the Controllers' Department after a competitive examination. Both departments are free and residential. Preference is given to students who have already worked in the mines.

*Program of study.*—Instruction in the Mining Technicians' Department offered in the first, second, and third years is both theoretical and practical. In the fourth, only 4 hours a week are devoted to class study and the remaining time is given to practical work. Students work in the mines according to a special program.

*Table 18.—Plan of studies for students of the Mechanical Engineering Section of the Technical Department*

Course	Hours a week, by year and term			
	I		II	
	1st term	2d term	1st term	2d term
	2	3	4	5
Mathematics		6	6	
Physics		4	2	
Chemistry		1	1	
Mechanics		3	3	
Arithmetic		2		
Technical drawing and descriptive geometry		6	3	
Machine parts			6	4
Graues				4
Technology		8	4	
Tool lathes				
Workshop and coating				3
Factory installation				2
Motors				2
Steam power				4
Water machines				3
Compressor refrigerators				2
Road and railroad vehicles				2
Heating and airconditioning				2
Aviation				2
Electrotechnology				4
Laboratory				
Civics and law			3	
Language			3	3
Turkish		2	2	2
Technical reports		3	2	2
Turkish history			1	2
Turkish geography		1	1	1
National defense course		1	1	1
Total	30	30	30	30

The courses of instruction in the Mining Technicians' Department include subjects such as geology, mineralogy, technical drawing, electrotechnology, topography, mine management, mine cleansing, and assaying. In addition, the school offers subjects of a general nature such as Turkish, history, geography, civics, mathematics, physics, and chemistry. At the end of the fourth year final examinations are held in which successful students receive a diploma. The candidates for the Diploma of Mining Technician are required to spend a period of practice in the mines to prepare a thesis.

The practical and theoretical instruction in the Mining Controllers' Department lasts for a year. The second and third years are divided into two semesters, one of which is theoretical and the other practical. The theoretical part of the instruction starts on the first Monday of December and lasts until the end of June. At the end of this period the semester of practical instruction begins and extends over 4 months. Theoretical courses include Turkish, history, geography, mathematics, biology, physics, chemistry, geology, machinery, technical drawing, mining management, practical topography, and sanitation.

Graduates who are successful in their examinations at the end of the third year receive the graduation diploma. The diploma of "Mining Controllership" is given to a candidate who, after the completion of the program described above, has spent about 6 months in the mines and passed the examination at the end of the period.

### COMMERCIAL SECONDARY EDUCATION

The establishment of new national banks, industrial firms, and insurance companies created a great demand for experienced accountants, clerks, and bookkeepers. Therefore the problem of providing commercial training became urgent. Commercial schools of both middle school and lycee level were founded in various localities. The aim of these schools was to train accountants, bookkeepers, and commercial clerks or secretaries. Evening commercial classes have also been started in connection with the full-time commercial schools.

The commercial secondary schools have three stages, each of 2 years' duration. The first two stages are spent in an orta tecim okulu, or a commercial middle school, admission to which is conditioned upon completion of the 5-year elementary school. The last stage of the commercial studies is completed in a tecim lisesi, or commercial lycee, which offers a 3-year course. The graduates of the regular middle schools of ortaokullar are admitted to the first year of the commercial

*Table 19.—Program of studies of the orta tecim okulu or commercial middle school*

Subject	Hours a week in—			
	Class I	Class II	Class III	Class IV
1	2	3	4	5
Turkish.....	6	5	3	2
Foreign languages.....	6	6	6	6
General mathematics.....	5	5	5	5
Commercial mathematics.....		3	3	1
Geometry.....		1	1	
Algebra.....			1	1
Science.....	3	3	3	3
Physics and chemistry.....			3	
General and commercial geography.....	2	2	2	2
Civics.....	1			3
History.....	2	2	2	
Economics.....			2	
Commercial law.....			2	2
Merchandising.....			2	1
Bookkeeping.....		2	2	
Fmannship.....	2	2	5	7
Drawing.....	2	2	2	2
Typing.....				5
Stenography.....			2	2
Military tactics.....				2
Total.....	30	34	30	30

lycee, but the graduates of the commercial middle schools may be admitted to the second year of the commercial lycee.

In addition to the preceding program, the schools offer 36 hours a year conference courses dealing with the following subjects: Advertisement, 6; Information on tobacco industry, 6; Stock ownership, 4; Hygiene, 10; Cooperatives, 10.

*Table 20.—Program of studies in the commercial lycees*

Subject	Hours a week, by year			
	I	II	III	
1	2	3	4	
Turkish commercial news and publications.....		3		
Turkish history and general history.....	2	2		1
History of commerce and industry.....		1		2
Commercial bookkeeping and statistics.....	4	3		1
Business and commercial mathematics.....	2	4		3
Commercial geography.....	2	1		2
Civics.....		1		1
Economics (finance and statistics).....	2	2		1
Commercial law.....	2	2		2
Natural sciences.....		3		2
Merchandise.....		2	2	2
Cooperatives.....				2
Administration.....			2	2
Typing.....	4			
Stenography.....	3			
General auditing.....				2
Drawing.....	2			
Foreign languages.....	6	1		1
Military tactics <sup>1</sup> .....	2	2		2
Total.....		24	24	24

<sup>1</sup> Extracurricular in first year.

*Table 21.—Commercial schools, secondary level: Number of teachers, enrollment, graduates, 1942-43 to 1947-48*

School year	Number of teachers			Enrollment			Number of graduates		
	Men	Women	Total	Boys	Girls	Total	Boys	Girls	Total
	1	2	3	4	5	6	7	8	9
<b>MIDDLE SCHOOLS</b>									
1942-43.....	9	4	13	1,223	254	1,477	102	22	214
1943-44.....	53	23	76	1,449	365	1,814	165	39	204
1944-45.....	56	34	122	1,585	369	1,954	183	33	216
1945-46.....	94	44	138	1,917	377	2,294	255	64	319
1946-47.....	97	49	146	2,121	341	2,462	333	70	412
1947-48.....	84	48	132	2,269	296	2,567	375	70	440
<b>COMMERCIAL LYCEES</b>									
1942-43.....	82	26	108	956	167	1,123	87	18	100
1943-44.....	77	20	96	1,326	150	1,472	148	25	178
1944-45.....	107	34	141	1,688	150	1,744	271	49	320
1945-46.....	120	45	171	1,644	132	1,776	372	28	400
1946-47.....	137	63	200	1,739	154	1,893	444	48	492
1947-48.....	122	64	186	1,784	166	1,950	497	44	541

### ADMINISTRATION AND SPECIAL BUDGET

By an act passed in 1941, the post of Under Secretary of State for Vocational and Technical Instruction for Men was created. The Directorate of Technical Instruction for Men under the newly created Under Secretary was charged with the responsibility of administering the technical schools and similar institutions.

On August 20, 1942, by a special act, 81,000,000 Turkish liras (lira = \$2.80) were appropriated for establishing new technical and vocational schools, building workshops in which graduates of boys' trade schools could spend a period of traineeship, and purchasing the necessary machines, tools, and equipment. Between 1942 and 1949, 46,636,500 liras were expended for building new schools or repairing old ones, and 23,259,133 liras were spent for machines, tools, and other equipment. The Department paid 4,851,533 as salaries and fees for foreign experts, and 457,106 liras were distributed among the schools as revolving capital. Of the 5,000,000 liras set aside for 1949, 2,500,000 were spent on school construction and 1,500,000 on machines and tools.

A large number of the vocational schools are partly financed by filling orders from outside customers for various articles made by the students. In a vocational school in Ankara, for example, where the students were building household furniture for a wealthy customer, the workmanship shown on completed pieces such as chairs, tables, and dressers would easily excel the products of many furniture manufacturing concerns. A good deal of the furniture and equipment and tools, and many of the laboratory instruments used in many schools in Turkey have been prepared by the students during their training in vocational schools. The students are even encouraged to make precision instruments in their workshops.

### TEACHER TRAINING

Until 1924 the majority of elementary and secondary school teachers had no professional standing. The fact that before 1924 anyone could open a school and teach had left a tradition that whoever knows something can teach it. It followed, then, that anyone who had an elementary certificate pretended to be able to teach in an elementary school. In fact very few people in the country believed that teaching is an art, that it is something to be acquired, and that the schoolmaster must be trained. By a law issued in 1924, the teacher's appointment, promotions, and certificates were all regularized. Today, elementary and secondary school teachers must have special qualifications and must meet certain standard requirements to obtain their teaching certificates. There is a uniform syllabus and system of training teachers

prescribed by the Ministry of Education and followed by the normal schools.

There are now 28 normal schools in Turkey including junior and superior normal schools as well as village institutes, with more in process of construction. As described in Chapter III, village institutes train teachers in addition to their other functions.

The normal schools for rural teachers are located in rural districts. The distinguishing feature of the rural normal schools is their science courses with practical work, which is usually in charge of a graduate of an agricultural school. Generally all the normal schools are free boarding schools with additional allowances provided by the State for clothing, books, and incidentals. Bursary students studying under State scholarships promise to serve the Government for a designated period as teachers in schools assigned to them by the Ministry of Education.

The number of graduates from normal schools has been steadily increasing, but the numbers do not keep pace with the urgent demand for teachers, particularly in the rural areas. During the school year 1948-49, the enrollment in regular normal schools was 550 men and 582 women; in village institutes training village teachers there were 11,244 men and 773 women.

Every summer, teacher education courses are offered for graduates of secondary schools. Generally these courses are intended to prepare students for teachers' examinations and are offered in normal schools, which means free lodging and low costs for food. Successful candidates receive appointments as assistant teachers. A second vacation course in education and psychology may lead to a permanent certificate for those who are successful both in classwork and in final examinations. Such summer courses are also offered in various centers to teachers as part of their in-service training. Training for elementary and secondary school teachers is described in Chapter III, dealing with elementary education, and the sections of the present chapter dealing with Middle Schools and Lycees.

#### TEACHER-TRAINING INSTITUTIONS

The Ministry of Education administers the following teachers' colleges: The Istanbul Higher Teachers' Training College; the Ankara Teachers' Training College and Gazi Pedagogic Institute; the Balikesir Teachers' Training School and Necati Pedagogic Institute; the Istanbul Physical Education Teachers' Training School. In addition, there are other professional teachers colleges for men and women which train teachers for the trade schools, as well as a "higher section" attached to the Hasanoglan Village Institute where primary school inspectors and village institute teachers receive their education.

**İSTANBUL YÜKSEK ÖĞRETMEN OKULU  
ISTANBUL HIGHER TEACHERS' TRAINING COLLEGE**

The Istanbul Higher Teachers' Training College trains teachers for the lycees or senior high schools. Students attending the Faculties of Letters and Science of the University are admitted to this college by passing an entrance examination. Here they take up courses such as foreign languages and education in addition to those which they follow at the university. It is a free boarding school. Graduates are required to serve for a given period at a school or institute designated by the Ministry of Education.

**ANKARA GAZI EGİTİM ENSTITUSU  
(GAZI INSTITUTE OF EDUCATION OF ANKARA)**

The Gazi Pedagogic Institute in Ankara was founded in 1926 to train teachers for secondary schools and inspectors for the primary schools. The institute offers courses in history, geography, mathematics, natural science, physics, chemistry, education, drawing, handicraft, music, physical culture, English, and French. The period of study in music, drawing, and handicraft is 3 years; all the other subjects require 2 years of study. The Institute offers in addition, specialized training for teachers of drawing, handicraft, music, physical education, and foreign languages (English and French).

Students who have completed their studies at lycees. (senior high schools) or teacher-training schools are admitted to the Institute. The primary purpose of the school is to train teachers qualified to give instruction in all basic subjects. All students are given an opportunity to gain practical classroom experience. Like other teacher-training institutions, it is a free boarding school. The graduates are required to serve as teachers for a fixed period of time in schools designated by the Ministry.

**BALIKESİR AND EDİRNE TEACHERS' TRAINING SCHOOLS**

To meet the increasing demand for teachers in the middle schools and trade or business schools, the Ministry of Education founded two training schools at Balikesir and Edirne in 1944 and 1947, respectively. Both of these institutions train teachers for the ortaokul (junior high school) and trade schools. The Balikesir has departments of mathematics, physics, and chemistry. The Edirne Teacher Training School has only a department of physical education.

**YÜKSEK BEDEN EGİTİMİ İNSTITUSU  
(HIGHER PHYSICAL EDUCATION TEACHER-TRAINING INSTITUTE)**

The Higher Physical Education Teacher Training Institute was founded at the Gazi Pedagogic Institute in Ankara in 1953 to train

teachers of physical education. In order to meet the ever-increasing demand for such teachers, a similar school was established in Istanbul in 1942. Graduates of the middle schools may be admitted to these schools provided they can pass the required entrance examinations.

The school offers a 3-year program of studies. The school year is divided into two semesters.

*Table 22.—Program of studies of the Higher Physical Education Teacher Training Institute*

Subject	Hours a week, by year and terms					
	I		II		III	
	1st term	2d term	1st term	2d term	1st term	2d term
1	2	3	4	5	6	7
<b>LABWORK:</b>						
Physiology.....	2	2	1	1		
Anatomy.....	2	2	1	1		
First Aid.....	1	1				
Special pathology.....						
Hygiene (general, school, sport, etc.).....	1	1	1	1	1	1
Antropomorphic.....						
Medical gymnastics and massage.....						
Theories of gymnastic.....	2	2	1	1	2	2
Play and sport education.....	1	1	1	1	1	1
History of physical education.....	1	1	1	1		
Education (psychology and methods).....	2	2	1	1		
Knowledge of fields and equipment.....	2	2				
Organization and administration.....					2	
History of Turkish revolution.....					2	
Music.....	1	1	1	1	2	2
Foreign languages (English, French, or German).....	4	4	4	4	1	1
<b>Total.</b>	19	10	14	14	10	14
<b>ACTICAL WORK:</b>						
Athletics.....						
Gymnastics, boys.....	2	4	2	4	2	4
Gymnastics, girls.....	6	6	6	4	4	4
Rhythmic gymnastics (girls).....	2	2	2	2	4	4
Sports.....	2	2	2	4	2	2
Branch sports.....						
Seminars.....	3	3	4	4	6	6

*Schedule according to the season:*

November 1—February 1.....	Winter term.
February 26—March 15.....	Ski course (in the school's winter place in the mountains).
March 15—March 31.....	Recess.
April 1—June 30.....	Spring session.
July 1—July 15.....	Examinations.
July 16—August 10.....	Water sports and swimming courses.
September 1—October 20.....	Recess.
October 20—October 31.....	Examinations of fall courses.

**ERKEK TEKNİK ÖĞRETMEN OKULU**  
**(ANKARA MEN'S TECHNICAL TEACHERS TRAINING SCHOOL)**

The Ankara Men's Technical Teachers Training School founded in 1937 trains instructors qualified to teach vocational and practical courses in the boys' trade schools, the building trade schools, institutes, and the men's evening trade schools. The school attempts to give a thorough practical and pedagogic training to the students. In 1948-49 it had 23 on its teaching staff and an enrollment of 506.

The course of study in the school was 3 years until 1946; since then it has been raised to 4 years. The school has the following departments: planning, metal working, founding, modeling, building, electricity, motor, radio, stone cutting, plastering, and sanitary installation (table 23).

*Admission.*—The school admits mainly the graduates of boys' trade schools, building trade schools, and village institutes. Candidates must not be over 24 years old, and they must be recommended by the Council of Teachers of institutes from which they were graduated. In addition they must pass the school-entrance examinations which are held during the last week of September. The subjects include Turkish, mathematics, and others which may be required by the departments selected. The successful candidates are admitted to the school as bursary students. Bursary students must work for the Government for a certain period of time after graduation. Students must choose the trade departments that they were attached to in their previous institutes.

*Examination and course of instruction.*—The teaching is both practical and theoretical in the Training School. The school has a number of workshops which are used for practical instruction. Each school year is divided into two terms. The first term starts on November 15 and lasts until the end of January. The second term starts on February 15 and continues until the end of May. Promotion from one class to another is determined according to the grades each student receives in examinations held twice a year. Examinations are either written or oral and may be both. Students who have not attended three-fourths of the practical or theoretical classes in a year automatically fail regardless of the grades they receive in the examinations. If a bursary student fails, he loses all his rights and may even be asked to pay back expenses incurred by the Government. No student may remain more than 2 years in the same class except with a medical excuse. Fourth-year students must pass an examination of efficiency in their own branches and in all subsidiary courses. The workshop efficiency examination is held during the second term, the exact time being fixed by the Council of Teachers. In the examinations, each student is

Table 23.—Program of studies in various departments of Ankara Men's Technical Teachers Training School

Subject	Hours a week, by subject and year																Heating and sanitary installation				
	Metal working				Engines				Electricity				Carpentry				Construction				
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	
Technical writing	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Foreign language (Revolution)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
History of the Revolution	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Social economy																					
Pedagogy																					
Mathematical mechanics																					
Differential geometry																					
General mathematics																					
Business of management																					
Physics																					
Chemistry																					
Mathematics																					
Applied mechanics																					
Drawing and planning																					
Classical technology																					
Social Technology																					
Management																					
Therm motors																					
Theory of electricity																					
Electrical engines																					
Technique of low currents																					
Technique of high currents																					
Technique of measurement and laboratory																					
Statics and constructional mathematics																					
Topography																					
Science of building																					
Science of construction																					
Installing, heating and ventilation																					
Sanitary sanitary installation																					
Control of efficiency																					
Teaching practice																					
National defense course																					
Workshop and practice																					
Total of working periods	44	44	38	48	44	44	44	44	39	39	43	44	44	44	44	44	43	43	43	43	44

given a project dealing with various phases of work, which he is required to complete in 2 or 3 months. In the efficiency examination of the subsidiary course, comprehensive questions are given which may cover all the class and laboratory work done since the student's entrance to the school. These examinations are held in June and September. The candidates who fail have three more chances to take them.

*Facilities.*—The workshops of the Training School are equipped with modern machinery and implements, mostly German made. Students are provided with all kinds of facilities with which to practice and experiment. The school also has a number of laboratories in physics, chemistry, and electricity. A large collection of laboratory tools and equipment was made by the students. The school has recently established a laboratory in industrial psychology. It is attempting to introduce various psychological testing devices to determine the student's aptitude.

**KIZ TEKNIK OGRETMEN OKULU  
(WOMEN'S TECHNICAL TEACHERS TRAINING SCHOOL)**

Formerly the graduates of the girls' institutes were sent to Europe to receive training as teachers of vocational courses taught at girls' trade schools. As the demand for this type of teacher increased, the Government established a vocational teachers' training school to meet the need. The Women's Technical Teachers' Training School was founded in 1935 and was then attached to the Ismet Inonu Institute for Girls at Ankara. Students who have completed the program of studies of the girls' institutes are admitted to the school provided they can pass the prescribed competitive entrance examinations. The aim of the school is to train teachers for the girls' institutes and women's evening trade schools. It offers a 4-year course, which includes the following fields: cutting-sewing; fashions-artificial flowers; embroidery; decorative drawing; cooking; child care. Instruction is both theoretical and practical. In 1948-49, it had an enrollment of 394 with a teaching staff of 16, according to the official report that year.

**YÜKSEK EKONOMI VE TICARET OKULU  
(HIGHER SCHOOLS OF COMMERCE AND ECONOMICS)**

In addition to the commercial schools discussed in Chapter IV, dealing with secondary education, there are two higher schools of commerce and economics, one in Istanbul and the other in Izmir. The aim of these institutions is to train teachers for the commercial schools as well as the personnel needed in the economic, commercial, and financial services of the State and private concerns. The Higher School of Commerce and Economics of Istanbul was founded in 1883 and came

under the control of the Ministry of Education in 1937. This school has departments giving instruction in (a) finance and domestic trade, (b) the duties of the consular service and foreign trade, and (c) banking and accounting.

The Higher School of Commerce and Economics in Izmir was founded in 1944 and offers a program of study identical with the one in Istanbul. During the school year 1948-49, the school in Istanbul had 28 teachers with a total enrollment of 1,345—84 girls and 1,261 boys. The institution in Izmir had 21 teachers, with a total of 861 students, 97 girls and 764 boys. The course of study in both schools extends over 3 years, and both have a secondary school department. Admission to the higher schools of commerce and economics is conditioned upon completion of a lycee, a senior high school, or a program of study equivalent to that of a lycee.

In addition to the teacher-training institutions, the Faculty of Letters of the University of Istanbul also prepares teachers and offers teaching diplomas in languages and literature (see page 64, Faculty of Letters).



*Boys Working in a Village Institute Classroom*

## Higher Education

ALTHOUGH VARIOUS institutions of higher learning developed in Turkey during the Ottoman era, it was not until about 1900 that a university in the modern sense of the term started to operate without the restrictions of a religious oligarchy. The old schools which provided higher education were known as madrassehs, or what may be called theological seminaries or colleges. These ecclesiastical seminaries were medieval in character, and almost all education was religious in nature. Most of them were in Istanbul, the center of the Great Caliphate of Islam and the capital city of the Ottoman Empire.

The religious schools were divided into five sections: (1) preparatory; (2) Iptidai Kharidji, first part secondary; (3) Iptidai Dakhil, second part secondary; (4) Sahn, higher section; and (5) Suleimanieh, the school of experts. Students who had completed the 3 years of higher studies of Sahn were awarded a certificate. With such a certificate they could enter Suleimanieh and specialize in any branch of the vast religious studies. Suleimanieh was divided into the following branches: Commentary on the Koran and Traditions of the Prophet; Canon Law and Philosophy of the Canon Law; Theology; Philosophy of Literature. The graduates were required to prepare a thesis which had to be approved by the Faculty Council. These schools were under Shaikhulislam, the Minister of Cannon Law, were heavily endowed, and also were subsidized by the grandees or the members of the royal family.

The majority of the scholars in Suleimanieh were bursary students who lived like hermits in special quarters in the mosque courts.

All the expenses of the students were provided by school endowments. There was no extracurricular activity of any kind except perhaps scholarly debates, which usually dealt with difficult Arabic grammar. Sometimes such debates were climaxed by fist fights. Generally the student's time was constantly occupied with study, research, meditation, and prayer.

The internal administration of these religious schools was the responsibility of a council of professors consisting of all the senior instructors or professors of the Suleimanieh. The members of the council elected a president and secretary from its members for a period of 1 year. Later, the madrassehs were abolished and their places

were taken by the theological college of the University of Istanbul, which has been transferred to the University of Ankara. Today higher education is provided in three multi-faculty universities and several higher professional schools.

## ISTANBUL UNIVERSITESI (UNIVERSITY OF ISTANBUL)

The University of Istanbul was originally one of the old madrassahs, or religious colleges, which flourished during the Ottoman Empire. It was founded in 1453 by Sultan Fatih and was expanded considerably in 1555 by Sultan Suleiman the Magnificent. The most important feature of the institution at that time was the fact that, in addition to theology and canon law, other sciences such as mathematics and medicine were also taught. In its long history, the institution on several occasions was forced to close its doors by the opposition of the religious oligarchy. In 1900 the University of Istanbul, then called Darulfunun (an Arabic word meaning literally House of Sciences), was reopened. It then comprised the departments of theology, mathematics, and literature. The School of Law and the School of Medicine at that time functioned separately. In 1908, the Schools of Law and Medicine were incorporated in the university. In 1924 the university, in its present form, was granted more administrative autonomy and independence in technical matters. The passage of the Universities' Law by the National Assembly in 1946 gave further administrative and financial autonomy to the university.

### FACULTIES

Under the law, the university is a federation composed of the various independent faculties or colleges. There are at present six main faculties or colleges:

Tıp Fakültesi—Faculty of Medicine.

Hukuk Fakültesi—Faculty of Law.

Edebiyat Fakültesi—Faculty of Letters.

Fen Fakültesi—Faculty of Science.

Orman Fakültesi—Faculty of Forestry.

İktisat Fakültesi—Faculty of Economics.

### ADMINISTRATION

The main representative bodies which coordinate the activities of the university and supervise the affairs and interests of the academic profession are the senate, the executive board, and the rector. The highest organ in the administrative order is the university senate, composed of the rector who acts as the chairman, the exrector, the deans (or dekan) of the various faculties or colleges, and two members of

each faculty who are elected by the faculties for a period of 2 years. The senate has the responsibility of approving the internal regulations of each college and rendering decisions on important academic matters. It also has the final authority with regard to the disciplinary actions pertaining to the faculty member. The executive board is composed of the president or rector, the exrector, deans of the colleges, and the general secretary of the university. The rector, or the president, of the university is elected from the members of different faculties on a rotation basis, which makes it possible for each college to have one of its members elected to this office once every 10 years. The term of office is generally 2 years.

The administrative body of each college is the general assembly made up of all the members of the teaching staff, including substitute professors. Each faculty or college has its own administrative body identified as (1) the general assembly composed of the teaching staff and charged with the supervision of academic matters and regulations of the colleges; (2) the council of professors, which decides on the nomination of the faculty members and the faculty budget; (3) the executive board, composed of two or three members elected by the council of professors to supervise the current academic affairs affecting students. The dean, who is elected by the council of professors for a 2-year term, presides over the various councils mentioned above and acts as coordinator.

The university is in a way completely independent of the Ministry of Education, but it establishes contact with the State through the Minister of Education. Any conflict between the Minister and the university is generally referred to the Inter-University Council. The decision of this body is final. The final judgment, therefore, on any controversial issue, for example, objections regarding appointments, legally rests with the Inter-University Council.

The Inter-University Council is composed of the rectors, the deans of three universities—University of Istanbul, University of Ankara, and Technical University of Istanbul—and one representative from each faculty. The Council is the coordinating body between the three institutions and is the highest authority to settle disputes between the universities and the Government.

#### FINANCE

The University is financed through the following sources: Grants provided by the State in terms of revenue which is entered to the credit of the university or an individual faculty; contributions from local funds; fees collected from the students; fees charged by certain faculties for research carried on for private individuals, industrial or

commercial organizations, or State departments; revenue from university publications; profits obtained from institutions founded by the university; and endowments. The largest part of the university budget is provided by the State, and the largest part of this sum is allocated for building purposes.

The budget of the university for the fiscal year 1948 (Faculty of Forestry excluded) was 14,242,663 Turkish liras (T.L. = \$2.80, official rate of exchange, June 1951), of which 12,722,500 Turkish Liras were provided directly by the State. The budget for 1949-50 (including the Faculty of Forestry) totaled T. L. 14,658,696, the State subsidy was T. L. 12,310,045.

#### TEACHING STAFF

The permanent faculty members or professors are appointed, according to the Universities' Law, by the council of professors. They cannot be dismissed from their chairs by an order from the Ministry unless a specific decision is taken by the Senate. They are not required to retire at the usual retirement age.

The "dozent," the starting rank in the academic hierarchy, is obtained by passing a special examination. In addition, the candidate must have a doctorate from either a Turkish or a foreign university and must have worked at least 2 years in his field of study. Examinations for the rank of dozent are held once a year by special committee appointed by the Inter-University Council. The next rank is professor. The candidate is chosen by the council of professors from among the dozents or other university professors. He must have served at least 5 years as dozent and also must have shown his capacity for the professorship through research and publications. The "ordinarius professor," or full professor, is chosen by the council of professors subject to the ratification of the university senate and the Ministry of Education. Full professors must have worked for 3 years as professors and also have shown outstanding ability. The teaching staff may also include instructors with the title of substitute professor, the lector, the practical expert, the interpreter, and the assistants, who are employed on a temporary basis.

#### ADMISSION REQUIREMENTS

Students are accepted on the basis of graduation from lycees and the passing of the final State maturity examination. The lycee is a 3-year senior high school which is based on 3 years of middle school (or ortaokul) and 5 years of elementary school (or ilkokul). The graduates of the lycee have followed either the scientific (fen) or the literary (abadiyat) line. The certificate of maturity representing the passing

of the State examination must be presented. In addition, the student should submit an official identification card and residence papers. A foreign national must also submit an official copy of his passport, health certificate, and a receipt of the university entrance fee.

#### **FACULTY OF MEDICINE**

The Faculty of Medicine, which formerly was located in Haydarpasa, has undergone many changes. In 1933 the faculty, together with its clinics and laboratories, was transferred from Haydarpasa to Istanbul. Clinics were set up in the following hospitals: Gureba, Haseki, Cerrah-pasha, Bakirkoy, and Sisli Children's Hospital. Many of the teaching staff were from France, Austria, and Germany, and the school almost constantly had to lean heavily on foreign teaching personnel.

The Faculty of Medicine has the following chairs organized either in clinics or in institutes:

Institute of Anatomy	Medical Clinics
Institute of Physiology	Clinic of Pharmacology
Institute of Biochemistry	Surgical Clinic
Institute of Microbiology, Epidemiology, and Parasitology	Gynecology and Obstetrics Clinics
Institute of Physiopathology	Clinic for Pediatrics and Children's Diseases
Institute of Cancer Research (no teach- ing)	Clinic for Ophthalmology
Institute of Hygiene	Clinic for Otorhinolaryngology
Institute of Pathological Anatomy	Clinic for Dermatology and Syphilis
Institute of Pharmacology	Psychiatric Clinic
Institute of Forensic Medicine	Clinic of Neurology
Institute of History of Medicine and Deontology	Children's Surgical and Orthopedic Clinic
Institute and Clinic of Radiology, Physio- therapy, Hydroclimatology	Clinic of Urology

*Course of study in medicine.*—The medical course extends over 12 semesters. The academic year is divided into two semesters, the winter and summer. The entire instruction period is divided into 3 parts: premedical, preclinical, and clinical. The Premedical (or preparation year) is taken in the Faculty of Science. During this period the student is expected to increase his knowledge of physics, chemistry, and natural sciences. This period is composed of 2 semesters and is called the class of F.K.T. (F.K.T. are the initials of physics, chemistry, and natural sciences, respectively.)

Students who are planning to participate in the final examinations in the courses listed above are required to present their attendance reports and other necessary documents. Those who fail their examinations at the end of the normal period of two semesters can be given two more chances—that is, they may take the examinations four semes-

ters after their registration at the university. The students who have failed in more than three of their examinations at the end of two semesters must take examinations in all the subjects of the section in the subsequent examination.

*Premedical program of studies*

Subject	Number of semesters	Hours a week	
		Lecture	Laboratory
General physics.....	2	4	3
Organic and inorganic chemistry.....	2	4	3
Analytical chemistry.....	1	1	
Botany.....	2	2	3
Zoology.....	2	2	3

The preclinical period, which extends over three semesters, includes the study of the following courses: anatomy, histology, embryology, biological and medical chemistry, and physiology. The course on the skeleton, which is the first and small part of the anatomy course, is taught during the second semester of the F.K.T. Class. In order to register for this preclinical period, a student must have successfully passed examinations in all the subjects of the premedical teaching period and present a certificate of F.K.B.

*Preclinical program of study*

Subject	Number of semesters	Hours per week lecture
Anatomy.....	3	4
Physiology.....	3	5
Histology.....	2	2
Biological chemistry.....	1	3
Embryology.....	1	5

Students are required to pass examinations on the foregoing subjects at the end of three semesters. Those who fail to pass the examinations at the end of the maximum allowable period (6 semesters) are required to repeat all the courses and sit for examinations at the end of a fixed period.

The period of clinics extends over seven semesters. During this period students attend the clinics regularly while following the theoretical and practical courses. In order to register for this part of the program, the student must have successfully passed the examinations in all the subjects of the preclinical program. During the first five semesters of the clinical period the following courses are offered in four groups, and the remaining two semesters are used for practical work connected with subjects taught in the second and third group:

Course	Number of semesters	Hours a week lecture
<b>Courses in the first group:</b>		
Microbiology, parasitology, and infection.....	3	5,4,2
Hygiene and social hygiene.....	3	3
Pathological anatomy.....	3	5,4,4
Physiopathology.....	3	3
Pharmacology.....	2	3
Forensic medicine.....	2	2
<b>Courses in the second group:</b>		
Internal diseases (with clinic).....	5	3
Surgical diseases (with clinic).....	5	3
Gynecology (with clinic).....	5	3
<b>Courses in the third group:</b>		
Pediatrics (with clinic).....	2	1
Puericulture.....	1	1
Children's surgery and orthopedics.....	2	1
Ophthalmology (with clinic).....	2	1
Clinic of otorhinolaryngology.....	2	1
Dermatology.....	2	1
Urology.....	2	1
Psychiatry.....	2	1
Neurology.....	2	1
<b>Courses in the fourth group:</b>		
Radiology.....	1	2
Physiotherapy.....	1	1
History of medicine and deontology.....	2	1
Hydrology.....	1	1

Students registered for courses in the first group must take examinations at the end of a specified period. Those who have been successful in these examinations and have completed the other branches of the first five semesters of the clinical period are allowed to begin with their practical training connected with the second group of subjects in the order of their choice. Generally the faculty decides on the distribution of students in various clinics according to the number of candidates and the capacity of clinics.

Students who have completed the number of semesters required for the third-group branches may start the practical training connected with these courses even if they have not completed the first-group examinations. The practical training lasts for 2 weeks in each course, and the student is given a certificate upon completion of his practical training. The candidate must pass an examination before he can receive the certificate. The courses in the fourth group have no practical work requirements.

In addition to the theoretical lecture courses in these groups, the following courses have required laboratory or practical work:

Course	Number of semesters	Hours a week laboratory
Anatomy	3	10
Histology	2	2
Biochemistry	1	1
Physiology	1	2
Microbiology	1	2
Hygiene	1	2
Pathological anatomy	1	2
Practice in autopsy (five times for each student)	2	2
Forensic medicine	2	2
Hydrology	2	1
Pharmacology	2	1
Pharmacodynamics clinic	2	1
Internal diseases and their clinics:		
Preparatory courses	1	2
Clinic work	4	3
Gynaecology and obstetrics clinics:		
Preparatory courses	1	2
Clinic work	4	3
Radiology	1	2
Physiotherapy	1	2

In order to participate in any examination the student must present the report of attendance to lectures and a certificate of his success in practical or laboratory work. The examinations are given during February, June, and October, and the student may take his examination during the period he selects. The dean's office prepares the list of the students who are qualified to take the examinations. A student who has failed three times in a subject has the right to ask for reexamination by a jury to be named by the dean. The Faculty of Medicine gives the following grades: Excellent, good, average, failing. After completing the prescribed course of studies and passing the necessary examinations, the student receives a diploma. A graduate of the School of Medicine may be awarded a doctor's degree by preparing a thesis.

*Tib Fakultesi Macmuasi* is a journal published by this faculty every 3 months.

#### SCHOOL OF DENTISTRY

The School of Dentistry was established by Ministerial decree in 1900. In 1909 the school offered a 3-year course, and it accepted anyone who could read and write. In 1924 the admission requirements were raised to graduation from a lycee, or senior high school. In 1933 further changes were introduced and the course was extended to 4 years.

*Course of study.*—The normal course is divided into three periods. The following program of studies is offered during the preliminary course, which lasts two semesters:

Subject	Number of semesters	Hours a week	
		Lecture	Laboratory
Chemistry.....	2	4	
General physics.....	2	4	
Anatomy.....	2	3	3
Introduction to prosthetics.....	2	1	6
			15

The following program of studies is offered during the preliminary clinical period which extends over two semesters:

Subject	Number of semesters	Hours a week	
		Lecture	Laboratory
General histology and embryology.....	1	2	12
Comparative dental anatomy.....	1	2	12
General physiology and biochemistry.....	1	2	12
Physiology.....	1	2	12
Microbiology.....	1	2	12
Materials of dentistry.....	2	1	12
Prosthetic practice (with dummy).....	2	1	12
Dental manipulation (on dummy).....	1	1	12
			12-24

<sup>1</sup> Student at Medical School.

<sup>2</sup> School of Dentistry.

The following program of studies is offered during the clinical period of four semesters:

Subject	Number of semesters	Hours a week	
		Lecture	Laboratory
<b>GROUP I</b>			
Hygiene and epidemiology.....	1	2	
Pathological anatomy.....	2	2	12
Dental pharmacology.....	2	2	12
General surgery.....	2	1	12
Introduction to orthodontics.....	2	1	12
Prosthetics.....	1	2	12
General pathology.....	1	2	12
<b>GROUP II</b>			
Dental diseases.....	4	2-2-1	12
Dental surgery.....	4	2-2-4-3	12
Orthodontics.....	4		12
Clinical prosthetics.....	4		12
Deontology and dental history.....	1	1	12
Internal diseases.....	1	1	12
Medical surgery.....	1	1	12
Ear, nose, and throat.....	1	1	12

<sup>1</sup> School of Medicine.

<sup>2</sup> School of Dentistry.

<sup>3</sup> Hospital School of Medicine.

After the completion of eight semesters, the students are awarded the degree of "Licentiate." Graduates may study an additional four semesters and present an acceptable thesis which entitles them to the "doctorate" in dentistry. The doctorate examination consists of an oral examination after the thesis has been accepted.

There are four clinics attached to the Dental School.

#### **SCHOOL OF PHARMACY**

The School of Pharmacy was attached to the Faculty of Science until 1944, when it was transferred to the Faculty of Medicine; however, it has its own director. The program of studies extends over eight semesters. During the first two semesters students take the following courses in the Faculty of Science: physics, chemistry, and botany. Those who pass in these subjects may follow the rest of the program in the School of Pharmacy.

#### *Program of study in pharmacy*

Subject	Number of semesters	Hours per week	
		Lecture	Laboratory
Pharmaceutical botany	2	2	3
Analytical chemistry	2	2	9
Inorganic pharmaceutical chemistry	2	2	
Microbiology	1	2	1,5
Hygiene	1	2	
Biochemistry	1	2	2
Galenic preparation and dosage	2	2	3
Galenic pharmacy	2	2	3
Pharmacognosy	4	1	3
Pharmaceutical chemistry	4	2	9
Pharmacology	2	2	
Toxicology	1	1	4
Medical first aid	1	2	1
Accounting and pharmaceutical legislation	1	1	
History of medicine, pharmaceuticals and deontology	1	2	
Practical training	2		
Clinical training—6 months			

Practical training consists of one semester's work for 3 days a week in the hospital pharmacies and one semester's work in the town pharmacies.

After completion of eight semesters' work the student receives a diploma. A graduate of the School of Pharmacy may be awarded a doctorate degree by preparing a thesis.

#### **FACULTY OF LAW**

The course of study in the Faculty of Law extends over eight semesters. The lectures are divided into required and elective subjects. The required subjects are divided into groups A, B, and C. In order to be admitted to courses B and C, the student must have passed the examination of group A. Examinations are oral and are held in June, October, and February.

*Program of studies in the Faculty of Law.*—Required courses in group A are as follows: Elements of law, constitutional law, Roman law, civil law, economics, sociology, general history of law, history of Turkish law, criminal law and criminal procedure, administrative law, general principles of public finance and financial legislation, public international law, jurisprudence and legal theory, public law, land law, private international law, civil procedure, mercantile law and law of insurance, maritime and aerial law, law of execution and bankruptcy, the law of copyright and patents, industrial law and labor legislation, comparative civil law, forensic medicine.

Under the elective subjects the following practical classwork is offered: Civil law, mercantile law, private international law, civil procedure, execution and bankruptcy, criminal law and procedure, and administrative law. Students must submit two essays in each semester, and those whose essays are approved obtain a certificate. A certificate is also offered to students who have successfully attended a seminar in the following fields: Constitutional law, Roman law, civil law, criminal law and procedure, administrative law, public international law, philosophy of law, public law, land law, private international law, mercantile law, intellectual rights, and comparative civil law.

A student may obtain the doctorate either in public or private law, by attending seminars in about four courses of specialization and presenting an acceptable thesis.

*Research Institutes in Law.*—There are three research institutes, the Turkish Institute of International Law, the Turkish Institute of Criminology, and the Institute of Administrative Law and Administrative Science—all of which are attached to the School of Law. The members of these institutes are composed of the faculties of the Schools of Law of the Universities of Istanbul and Ankara together with the legal advisers of the Turkish Ministry of Foreign Affairs.

#### FACULTY OF LETTERS

The regulations governing this faculty as well as its curriculum are in the process of revision. The Faculty of Letters awards a special teaching diploma (*Ogretim Lisansı*) and a general diploma (*Serbes Lisansı*). Teaching diplomas may be taken in the following subjects: Turkish language and literature, philosophy, history, geography, French and Roman philology, English, German, Greek, or Latin. General diplomas are awarded in classical archeology, ancient languages and archeology of the Near East, history of art, Arabic and Persian philology, and pedagogy. Certificates are given in ethnology and pre-history and general linguistics, but they are not considered as equivalent to diplomas. It is possible for students to obtain a general diploma

by combining certificates from various fields. Students working for a general diploma are exempted from the courses in psychology and pedagogy intended for students preparing for a teaching diploma.

A student studying for a diploma is also required to write a thesis, and he may not take the final examination until his thesis has been approved.

The graduates of the Faculty of Letters may work toward a doctor's degree, which is granted after 2 years, or 4 terms, of study and the presentation of an acceptable thesis.

*Research institutes of the Faculty of Letters.*—The Faculty of Letters has the following departments and research institutes: Department of Turkish language and literature; department of philosophy; departments of history, geography, French and Roman philology, English, German, classics, archeology, the ancient language and archeology of the Near East, history of art; institute of pedagogy; and institute of Turcology.

The Faculty publishes the following reviews: *The Review of the Turkish Language and Literature*, *Archives of Philosophy* (Felsefe Arsivi), the *Review of Sociology* (Sosyoloji Dergisi); the *Review of Western Philologies* (Garp Filoloji Dergisi). In 1940, by a decree of the Turkish Ministry of Education, an editorial committee was instituted in the Faculty of Letters to prepare the *Encyclopedia of Islam*. The project is still in progress.

#### FACULTY OF SCIENCE

The Faculty of Science grants license degrees (graduation diplomas) and doctor's degrees in the following subjects: Mathematics, astronomy, physics, chemistry, botany, geology, and zoology. The course of studies for the license degree extends to eight semesters. The faculty also offers an eight-semester course in chemical engineering. The doctorate is granted after eight semesters of graduate study and presentation of an acceptable thesis.

#### FACULTY OF ECONOMICS

The Faculty of Economics offers a license, or graduation diploma after 4 years of study. The student must select two subjects from the following list for specialization: Business administration, public finance, statistics, social policy and local administration, and political sciences. There are three groups of examinations to be passed in the following subjects: Economics, business administration, economic history, economic geography and the economy of Turkey, administrative law, civil law and bankruptcy law, sociology and methodology, public finance, statistics, social policy, and local administration. Different regulations govern course examinations in each field of specialization.

The faculty also grants doctor's degrees to the holders of diplomas from the faculty after about 2 years of additional study and presentation of an acceptable thesis. The faculty publishes a quarterly *Review of the Faculty of Economics*.

#### FACULTY OF FORESTRY

The Faculty of Forestry is divided into eight institutes which are engaged both in research and in training of students. These institutes also have the responsibility of conservation and development of forests in Turkey.

The Faculty of Forestry offers a 4-year course, but the first year's work is taken at the Faculty of Science. The following courses are offered after the third semester: Silviculture, forest botany, forest policy, forest management, forest administration, forest accounts, history of forestry, forest products, logging, lumbering, forest protection, forest entomology, forest finance, forest mensuration, log transportation, soil erosion, soil conservation, principles of mechanics, drawing and plotting, geodesy, soil science, forest ecology, law, economics, finance.

#### UNIVERSITY LIBRARY

The University Library was founded in 1924 and is located at Takvimhane Caddesi, İstanbul, Bayazit, near the central building of the university. The library has two sections, one section containing printed publications and the other manuscripts. The total number of books in both sections of the library is 148,300 volumes. The manuscript section contains 20,000 manuscripts in Turkish, Arabic, and Persian. Some manuscripts are rare examples of oriental calligraphy, book-binding, decoration, and miniatures. Generally books are not lent to students and only faculty members and advanced students

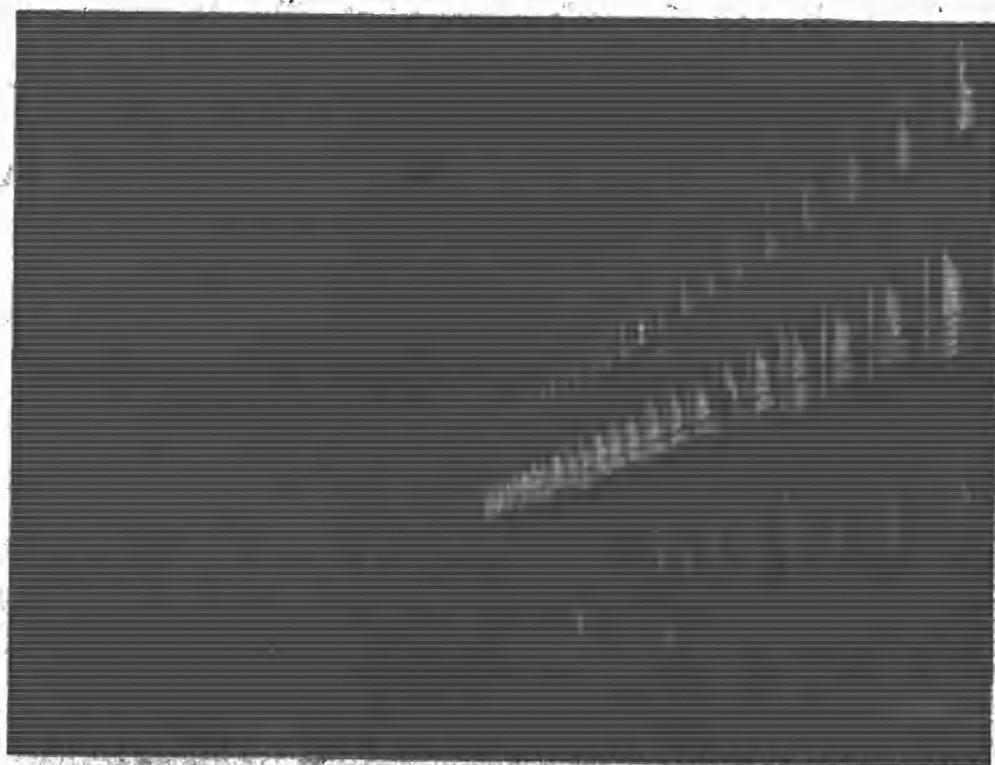
*Table 24.—Enrollment and teaching staff, by faculty, University of İstanbul, 1948-49*

Faculty	Number of professors, by rank				Enrollment		
	Full	Associate	Assistant	Assistant lecturers	Men	Women	Total
1	24	3	4	6	6	7	8
Letters	7	21	19	32	1,000	1,302	2,302
Science	11	9	26	62	1,300	406	1,696
Law	11	5	10	—	2,177	407	2,584
Economics	6	5	3	—	1,250	125	1,351
Medicine	17	31	32	—	2,102	200	2,302
Forestry	2	7	—	—	276	—	276
Total	54	78	90	94	9,450	3,590	12,040

are admitted to the library. The collection of books and manuscripts is not properly catalogued.

### ANKARA UNIVERSITESI (UNIVERSITY OF ANKARA)

The University of Ankara was founded by the Government in 1946, although several faculties of this institution existed before then, having been established at different times. The University of Ankara is now composed of the following schools: (1) Hukuk Fakültesi (Faculty of Law), which was founded in 1925 as a School of Law and became a Faculty 2 years later; (2) Dil Tarih Coğrafya Fakültesi (Faculty of Language, History, and Geography), which was established in 1935; Fen Fakültesi (Faculty of Science), which was founded in 1943; (4) Veteriner Fakültesi (Faculty of Veterinary Medicine), which was founded in 1933 and became a part of the university in 1948; (5) İlahiyat Fakültesi (Faculty of Theology), which was formerly connected with the University of İstanbul. The Faculty of Theology for some time was also known as the Institute for Islamic Research, but had to close its doors in 1933 owing to lack of attendance. The Grand National Assembly passed a law in 1949 providing for the setting up



*School of Political Sciences, Ankara, Turkey.*

of a Theological Faculty in the University of Ankara. Its main field is research and teaching in Islamic theology and comparative religions. It also offers courses of study in psychology, sociology, and Arabic, Persian, and Occidental languages.

The teaching staff of the Faculty of Theology, as approved by the Grand National Assembly, consists of 6 full professors, 10 assistant professors, and 18 instructors. Certain professors of the former Theological Faculty of the University of Istanbul have been transferred to the new school.

Another faculty which has joined the university recently is the old Mulkiye Mektebi, the well-known Civil Service School founded in 1857, to train men for the Civil Service. Since March 1950 the school has been attached to the university and is now known as the Faculty of Political Sciences. The school was first located in Istanbul and was commonly referred to as the Civil Service School. In 1935 it was renamed the School of Political Sciences and in 1937 was transferred from Istanbul to Ankara. The program of studies has been changed a little under the policies of the university; however, the school will continue with its original aim of training personnel especially for the Ministry of the Interior and the Ministry of Foreign Affairs. The school offers a 4-year program which contains a joint program of instruction during the first 3 years, and specialized subjects in administration, finance, and political sciences during the last year of the school.

Four institutes formerly attached to the School of Political Sciences—the Institutes of Administrative Sciences, Foreign Relations, Finance, and Installation of Population and Urbanism—have also been transferred to the University of Ankara.

*Table 25.—Enrollment and teaching staff, by faculty, University of Ankara, 1948-49*

Faculty	Number of professors, by rank				Enrollment		
	Full	Associate	Assistant	Assistant lecturers	Men	Women	Total
1	2	3	4	5	6	7	8
Languages, history, and geography.....	4	18	22	11	454	476	930
Science.....	1	9	7	3	130	67	197
Law.....	5	7	5	3	2,708	260	2,968
Medicine (in process of formation).....	1	20	13	.....	286	141	1,027
Veterinary medicine and agriculture (attached to the university since 1949).....	13	25	4	.....	616	36	652
<b>Total.....</b>	<b>24</b>	<b>88</b>	<b>81</b>	<b>17</b>	<b>4,891</b>	<b>1,922</b>	<b>6,813</b>

The teaching staff of the School of Political Sciences, consisting of 18 professors, 30 associate professors, 45 assistants, and 10 lecturers have also joined the university.

According to the established policy, this new faculty will admit a number of bursary students free of charge every year. These students will be provided free lodging and board and will be required to serve in Government for a period of at least 8 years after the completion of their course of study. There were 40 such free students during the school year 1949-50.

### FINANCES

The budget for 1949 of the University of Ankara (Faculty of Agriculture and Veterinary Medicine included) was 8,121,078 Turkish Liras, of which 7,311,033 came from the State.

The internal organization and administration of the University, the examinations, degree requirements, admissions, etc., are about the same as in the University of Istanbul.

### İSTANBUL TEKNİK UNIVERSITESİ (TECHNICAL UNIVERSITY OF İSTANBUL)

The Technical University of Istanbul was originally established in 1773 under the name of Muhendishanei Bahriye (Naval Engineering School) and was then attached to the Imperial Engineering School. After two reorganizations, the school was named Imperial Military Engineering School in 1845. Later its name was changed to Yüksek Mühendis Okulu (Higher Engineering School), and gradually various departments were added. The school was taken over by the Ministry of Education in 1941 and was reorganized in 1944 and given the name of İstanbul Teknik Üniversitesi (Technical University of Istanbul).

The university has now four faculties: Insaat Facultesi (Faculty of Civil Engineering); Mimarlık Facultesi (Faculty of Architectural Engineering); Makine Facultesi (Faculty of Mechanical Engineering) and Elektrik Facultesi (Faculty of Electrical Engineering). A Naval Architecture Engineering Department was added in 1943-44.

The aims of this institution are to train engineers, encourage research in the field of engineering, carry on specific research on engineering problems dealing with the country's various needs, and encourage publications in the field of engineering.

The Faculty of Civil Engineering has the roads, railroads, and hydraulics sections; the Faculty of Mechanical Engineering has mechanics, aeronautics, and naval engineering sections; the Faculty of Electrical Engineering has high-tension and low-tension sections.

## FINANCES

The budget for 1949 of the Technical University of Istanbul was 4,624,538 Turkish liras, of which 3,994,538 came from the State.

*Table 26.—Enrollment and teaching staff, by faculty, Istanbul Technical University, 1948-49*

Faculty	Number of professors, by rank				Enrollment		
	Full	Associate	Assistant	Assistant lecturers	Men	Women	Total
1	2	3	4	5	6	7	8
Civil engineering.....	3	13	10	22	609	6	615
Architecture.....	2	7	6	23	200	22	222
Mechanical engineering.....	2	11	19	43	365	1	366
Electrical engineering.....	1	5	10	19	178	8	186
Total.....	8	38	45	107	1,362	37	1,399

## ADMISSION AND COURSE OF STUDY

Admission to all university faculties is conditioned upon the student's completion of the standard secondary school program, or 3 years of middle school followed by 3 years of lycee, and successful passing of the State maturity examination in the science or mathematics line. In addition, each faculty has its own special entrance requirements.

The course of study extends over 5 years with great stress on practical work. The students planning to receive the degree of Yuksek Muhendis (advanced engineering degree) must present a thesis and pass all the necessary examinations of the university, and those preparing for "Doktor Mühendis," or a doctor's degree, are expected to present a dissertation and pass the prescribed examinations.

## ACADEMY OF FINE ARTS

The Academy of Fine Arts was founded by the Ministry of Commerce in 1883, and was placed under the control of the Ministry of Education in 1887. In 1917 it was given the name of "The Higher School of Fine Arts" and in 1926 was reorganized and named "The Academy of Fine Arts." It is a tuition-free school and has the following departments: architecture, painting, decorative art, and Turkish decorative arts.

## DEPARTMENT OF ARCHITECTURE

This department aims at training architects and giving an opportunity to young artists to do research and engage in creative art work.

The students in this department are selected from lycee graduates by competitive examinations. The competition is in drawing, mathematics, and Turkish essay writing.

*Course of study.*—The program of study covers 5 years. In the first 2 years most of the work is theoretical. Third- and fourth-year students work in the studios, while fifth-year students are completely occupied with practical art work.

#### DEPARTMENT OF PAINTING AND SCULPTURE

This department offers advanced courses in oil painting, modeling, fresco work, engraving, relief, and work on stone or wood. There is no class system, and duration of the course is not fixed. It admits middle-school graduates, selecting applicants according to their ability and skill in painting and sculpture.

#### DEPARTMENT OF DECORATIVE ARTS

The Department of Decorative Arts has two sections: the Eastern and Western Arts sections. These sections admit graduates of boys' trade schools, girls' institutes, and middle schools. The course of study extends over 5 years and includes the following subjects: interior decoration, surface decorating, posters, graphs, ceramics, glass painting, window dressing, illuminations, decorative Arabic writing, Turkish bookbinding, rug designing, gold leaf work, Turkish miniature, and Turkish tile designing. Graduates of either section may enter a trade or become a teacher in a trade school.

### THE STATE CONSERVATOIRE

The State Conservatoire offers the middle and higher special courses which are divided into two sections: (a) the Department of Music and (b) the Department of Drama.

The Department of Music offers the following fields of specialization: composition; the orchestra conductors' branch; piano, organ, and harp; string, wind, and percussion instruments; and voice.

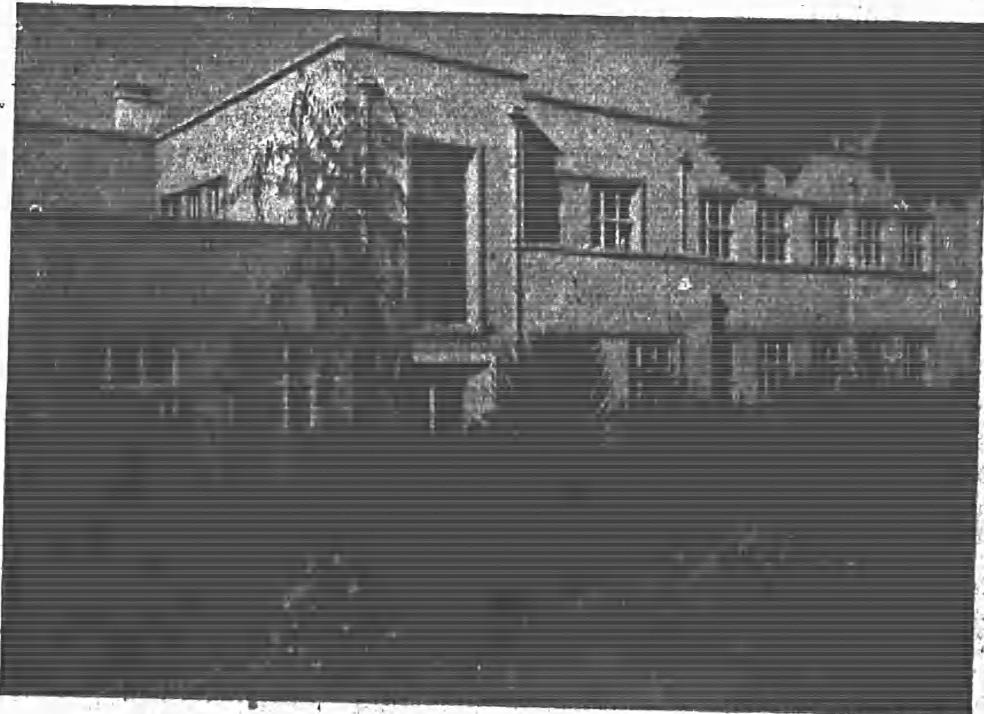
The course of study in composition extends over a period of 9 years. The first 5 years is considered as secondary and the last 4 years as higher education. Graduates of the middle schools between the ages of 14 and 20 may be admitted to the composition section. The entrance requirement is proficiency in playing some musical instrument and ability in composing.

The orchestra conductors' branch is open to students who have completed the first 5-year course in the composition section. The age of admission is from 18 to 25.

The piano, organ, and harp section has a 7-year secondary course, and the admission age is 9 to 14. At present there is no course in organ. Instruction in this section does not extend beyond the secondary education level.

#### DEPARTMENT OF DRAMA

The Department of Drama has three sections: opera, theater, and Ballet, all of which are still in their developmental stage. They generally admit qualified middle-school graduates or those who have graduated from different sections of the Department of Music.



*Girls Institute in Ankara*

## *Adult Education and Other Cultural Activities*

### CHANGE OF ALPHABET

AN ATTEMPT to combat illiteracy in Turkey started soon after the introduction of Latin characters (1928), which, according to the Turkish authorities, were better suited to the phonetic needs of the Turkish language. The nature of the Arabic characters made reading and writing difficult. Often even the people who had been educated in schools for years could not write well. The census of 1927 indicated that out of a population of 13,648,270 only 1,111,496 knew how to read the Arabic characters, and actually the number of those who could read was probably much smaller than the official census revealed. Law No. 1353, November 3, 1928, abolished the use of Arabic characters in the Turkish languages and officially adopted the new 29-letter Turkish alphabet of Latin origin. Then the campaign to educate great masses of people was under way.

### ESTABLISHMENT OF ADULT CLASSES

In the larger cities and towns adult classes or schools were established. In many rural areas where there had been no school at all, the Government opened mobile schools which operated only for a certain period of time. The types of adult schools were for the benefit of those who did not know how to read and write or those who knew only the old characters. Men and women who, owing to their age, could not be admitted to the regular elementary schools entered these new schools. From 1928 to 1935, 60,873 such schools were opened and were staffed by 51,816 men and women teachers. Approximately 2,486,845 Turkish men and women learned how to read and write besides acquiring other necessary knowledge. The Government spent about 2,619,439 Turkish liras on the project. Those who learned the new alphabet privately and others who received instruction in the

Army, in other Government agencies, and in regular schools are not included in the above figures.

The Ministry of Education carries on an ambitious vocational education program for adults. This professional training program has been taken seriously, and there are numerous trade schools, evening schools, and commercial schools which provide vocational education for boys, girls, and adults in many fields. In almost all such schools, there is instruction in reading and writing as well as in vocational subjects. The Ministry of Education has provided mobile village courses for adults which begin in October and end in April. Each day 8 hours are devoted entirely to practical work. Courses include carpentry, home economics, hygiene, child care. Reading, writing, and some arithmetic are taught to illiterates. Men and women of all ages can attend these courses. At present there are 419 traveling vocational courses for village women with about 10,000 students in attendance.

### ARMY CONTRIBUTION TO ADULT EDUCATION

About 80 percent of the Turkish population is composed of village people. Since the village schools have been established only recently, most of the men who enter the army do not know how to read and write. The army, taking this into consideration, has turned all garrisons into adult schools. Evening classes are arranged with officers conducting the courses in which the soldiers are taught reading, writing, hygiene, and civics, in addition to military training. Also in the specialized military classes practical instruction is given in carpentry, radio repair, electricity, mechanics, and other trades.

### ADULT COURSES OF THE MINISTRY OF AGRICULTURE

The Ministry of Agriculture with its own agricultural schools, technical courses, and stations of various types participates in the field of adult education. Technical agricultural schools, forestry schools, veterinary schools, and regional agricultural schools not only train students in technical subjects, but provide guidance and other educational opportunities for the farmers in the vicinity of such schools. The agricultural schools are established primarily for students who have been unable to continue their formal education. The number of courses held by the Ministry of Agriculture and the number of graduates from such adult classes during 1951 were as follows:

Course	Number of courses	Number of graduates
Agriculture	38	691
Olive culture and pruning of olive trees	258	11,408
Farm machinery mechanics	17	697
Veterinary	8	301
Poultry keeping and agriculture	12	626
Feed purifying	1	8
Agriculture (general)	1	43
Canning	16	843
Dairy products	6	62
Viticulture and treacle raking	2	43
Horticulture	28	297
Forest protection	21	2,237
Soil conservation	2	47

In 13 different places during 1949 and in 21 during 1950, courses were held for teaching the operation, maintenance, minor overhauling, and repair of tractors and other farm machinery brought to Turkey under the Marshall Plan. During the first year 1,013 students, and in the year following 1,289 students, were graduated from these courses.

### PROGRAM OF MINISTRY OF HEALTH AND SOCIAL WELFARE

The Ministry of Health and Social Welfare in Turkey operates 22 health centers which invite mothers and the general public to attend special lectures on child care, hygiene, and health topics. The visiting nurse from such centers gives advice on how to take care of the sick. The Ministry of Health and Social Welfare also sponsors adult classes which provide instruction for nurses, midwives, and health officers.

### PROGRAM OF MINISTRIES OF JUSTICE, LABOR AND STATE ENTERPRISES

An adult education program is carried on in the prisons under the guidance of the Ministry of Justice. In some prisons, rug-making, metal work, and general agriculture courses are provided for the inmates. Similarly, the Ministry of Labor and the Ministry of State Enterprises have adult education centers where the workers are given instruction in reading and writing as well as in technical courses. By law, instructional courses to increase the technical and professional skill of workers must be provided by employers wherever the average daily number of employees exceeds 100, and in addition, all institutions, including State factories, are obliged to organize courses to promote professional training, education, and entertainment for the workers. Adult classes are also conducted under the auspices of the Association of Labor Exchange. These classes offer courses in reading and writing, as well as in printing, binding, shoemaking, sewing, and various other practical arts.

## OTHER AIDS IN ADULT EDUCATION PROGRAM BOOKS

To combat illiteracy and continue with the program of adult education, the Ministry of Education needed a great many publications in the new Latin script. Therefore the Ministry in 1940 organized a translation bureau, and since then, the bureau has completed many translations from the great works of World literature. Translations have been made from Arabic, Chinese, Persian, Greek, Latin, English, French, German, Hungarian, Italian, Russian, and Scandinavian.

The number of translations in different years is as follows:

Year	Number of books	Year	Number of books	Year	Number of books
1940	10	1944	103	1948	82
1941	13	1945	129	1949	73
1942	28	1946	165	1950	48
1943	71	1947	58		

## PAMPHLETS

The Ministry of Education also issues another type of serial publication for the general public—small books written in simple language and designed especially for village readers. These books contain valuable information and are presented in attractive style. Other Ministries also, such as the Ministry of Agriculture and Public Health, have prepared cards and brochures on subjects dealing with personal hygiene, pre-natal care, diet, and prevention of disease.

## RADIO

Once a week the Turkish radio broadcasts regular 15-minute programs under such titles as, "Together with the Farmer," and "Book Hour." The National Library at Ankara, the Museums at Ankara and at Istanbul, as well as the higher institutions of learning in these cities provide free lectures to the public as part of the general adult education program of the country. The Turkish radio often broadcasts the lectures.

## HALKEVLERİ AND HALKODALARI

Halkevleri (the People's Houses) in towns, and Halkodalari (or People's Rooms) in villages scattered all over the country a few years ago were founded to promote the intellectual and cultural development of the public and to encourage people's creative abilities. The activities of the People's Houses were divided into nine groups: language and literature, fine arts, dramatics, sports and games, social

assistance, people's classrooms and various courses, library and publications, rural activities, and history and museums. Every 2 years an election was held to select a committee for each activity group, which in turn elected its chairman. The board of the House was composed of the chairmen of the committees. Throughout the year, People's Houses organized lectures, national anniversaries, dramatics, concerts, exhibitions, family meetings, excursions, etc. The People's Houses also engaged in political discussions. In addition to social activities, courses were arranged for adults in reading and writing, Turkish sciences, sewing, handicraft, bookkeeping, and foreign languages. Local handicrafts were especially encouraged. All such courses of activities were free, and anyone over 18 years of age could participate. There were some 478 People's Houses and 4,322 People's Rooms in Turkey. The organization and administration of the People's Rooms were similar to those of People's Houses but somewhat simpler in form. They generally consisted of a reading room which was the center of whatever activities were conducted in the village. All these institutions were in a stage of transition, and now seem to have been discontinued.

Careful plans have been worked out for the elimination of illiteracy and the establishment of an effective adult education program in Turkey. Authorities believe that if present plans are adhered to their goal may be partly realized within 10 years. According to their plan, within 5 years some districts will have enough teachers and schools to provide for all their children of school age; within 10 years' time all other districts will have enough teachers and schools to provide for 70 percent of their school-age children.

## VILLAGE INSTITUTES

The Village Schools and Institutes Act of 1942 charged village school teachers with the important task of adult education. Accordingly, adult education classes have been opened in almost every village where there is a school. The significance of the movement may be better understood by the fact that between 1928 and 1935 two and a half million Turkish citizens attended the various adult education classes scattered throughout the country.

## LIBRARIES AND CULTURAL ACTIVITIES

### DEPARTMENT OF ANTIQUITIES AND MUSEUMS

Activities in connection with museums, fine arts, and libraries are under the control of the Department of Antiquities and Museums in the Ministry of Education. The protection of Turkish historical art

treasures and libraries and the dissemination of information concerning the museums, art collections, rare documents, or books are the responsibility of the Department of Antiquities and Museums. From the administrative point of view Turkish museums are divided into three groups: (a) State museums, (b) museums maintained by local authorities, and (c) storehouses for antiques.

*State museums.*—The largest and most important State museum is the Imperial Museum, which was built mostly through the efforts of Osman Hamid Bey during the years 1891-1908. This museum has the following sections: Roman and Byzantine works of art, Assyrian, Chaldean, Egyptian, Phoenician, Hittite as well as those of Asiatic and African peoples, Islamic works of art, ancient coins, and a library containing books on history and archeology.

*The Istanbul Archaeological Museum*, has the following sections: Section of ancient oriental works of art, Museum of classical works of art, and a chemical laboratory and library containing books of Western origin.

*The Saint Sophia Museum*, the Basilica built by the Byzantine Emperor Constantine, collapsed in A. D. 531. In its place, Justinian built the Saint Sophia, which with its interior decoration is a perfect example of Byzantine art and architecture. The church was transformed into a mosque in 1453, and on November 24, 1934, it became a state museum.

*The Topkapi Seraglio Museum* is the original palace built by Mohammet II, and during five centuries, from the fifteenth to the nineteenth, many additions to it were built. The building is a representative of Turkish architecture which also reflects foreign influence. The Museum of Turkish and Islamic Art (which is connected with this state museum) is housed in the famous "Suleymaniye Seminary" built by the celebrated Turkish architect Sinan. The museum has a rich collection of Turkish rugs and clothes, weapons, pictures, and books of Sultan Mohammet II. The museums described above are all in Istanbul, the old capital city of Turkey.

In Ankara there are two state museums, *The Archaeological Museum*, started in 1923, contains objects of prehistoric period discovered at excavations conducted by foreign and Turkish archeological expeditions in Anatolia. The collection is a rich source for research on the history of the Hittites. *The Ethnographical Museum*, established in 1927, contains valuable specimens of Turkish and Islamic Art, mostly religious objects: articles belonging to dervishes, mausoleums, mosques; and other articles, such as candlesticks, healing bowls, talismans, Turkish tombstones belonging to Seljukian and Ottoman periods, and Turkish seals.

In Konya the *Mevlana Celalettin Mausoleum*, considered as the most beautiful among the Seljukian monuments, has been made a museum. It contains valuable rare manuscripts, rugs, woodwork, etc.

The *Bergama (Pergamon)* Museum contains the historical relics discovered in excavations conducted at Pergamon. The museum is a part of the old citadel in the old city of Bergama, which is now being repaired through the cooperation of the Ministry of Education and the Office of Tourist Affairs.

In addition to these museums each province has its own local museum under the administration of provincial authorities. The Government is also building large warehouses to store antiques and objects of art which will later be transformed into regional museums.

## LIBRARIES

True to the tradition of the East, libraries in Turkey were originally individual private collections made by people who were interested in education and in a variety of information. Generally these libraries were later made available to the general public through pious legacies. Thus such libraries became the property of the Nation. Some of these collections of books were also valuable collections of art. According to the tradition of the East a book does not represent merely an expression of thought, but an art in its true sense has grown up around it. A book with its writing, illuminations, binding, and miniatures is an expression of beauty.

### DIRECTOR OF LIBRARIES

Activities in connection with libraries are now centralized in the Office of Director of Libraries under the Ministry of Education. There is a commission which is charged with the responsibility of cataloging the books. Many libraries, including those in the universities, have no modern card index system such as those we are familiar with in the United States. Most of their libraries have arranged the books according to size. Furthermore, the libraries are not used regularly and freely by students. To the Turkish student, the concept of doing research in the library and having free access to books in the library is very new. An American librarian connected with the Department of State Library Services abroad is making an attempt to introduce the modern system of card cataloging to the libraries in Ankara. It is hoped the idea will spread through the Ministry of Education to other libraries in the country.

There are 49 public libraries, not including those in the colleges or universities. There are a few libraries established by individual

patrons of learning or private foundations. The National Library at Izmir is an example of such libraries. The Turkish Historical and Linguistic Societies have their own libraries, which are under Government patronage.

#### TEXTBOOKS AND OTHER PUBLICATIONS

*Department of Publications.*—Almost all the textbooks used in elementary and junior and senior high schools are prepared, selected, printed, and distributed by the Ministry of Education. The Ministry also prepares other teaching aids, encyclopedia, professional publications, magazines, and journals.

All activity in the field of publication is under the administration of the Department of Publications attached to the Ministry of Education. The Office of the Director of the Milli Egitim Printing House is in Istanbul with a branch office in Ankara. The Bureau of the Encyclopedia of Islam is also in Istanbul. The Bureau of the Inonu Encyclopedia is in Ankara with a branch office located in Istanbul. *The Encyclopedia of Islam* is being prepared under the supervision of the Faculty of Letters of the Istanbul University. *The Inonu Encyclopedia* is being prepared by various Turkish scholars. *The Encyclopedia of Fine Arts* is being prepared by Professor Celal Esat Arseven, and its first section has been completed and published. Since 1941 the Ministry of Education has completed numerous translations of foreign general scientific and classical works.

The Ministry of Education prepares and publishes the following periodicals:

*The Official Bulletin, The Primary Education Review, The Technical Education Review, The Historical Documents Journal, The Translation Review, The Fine Arts Review, The Woman and Home.*

There are also a number of other miscellaneous publications prepared by the Ministry of Education, such as a Yearbook, maps, and bibliographies.

## *Foreign and Minority Schools*

DURING THE OLD OTTOMAN EMPIRE and up to the beginning of World War I, there were a number of schools established by foreigners. During the first World War most of these schools were closed, and a number were transferred to neighboring countries. Under the clauses of the Lausanne Treaty of July 24, 1923, relative to the protection of minorities, the Turkish Government recognized the right of the Turkish nationals belonging to non-Moslem groups to establish and operate schools in their own languages. The attitude of the Government, however, toward both private and foreign enterprises in education is generally somewhat cool. Education is definitely considered to be a state prerogative; consequently despite the urgent need for more schools and facilities, private and foreign schools receive comparatively little official encouragement. Strict control is exercised by the Ministry of Education over curriculums of foreign schools, and extreme sensitiveness is manifested regarding foreign influence, national and cultural, as well as religious, on the student body. For instance, a law passed on March 28, 1931, prohibits Turkish children from acquiring their elementary education in foreign schools. As in other phases of official life in the new Turkey, nationalism and secularism constitute distinct features of the Government's educational policy.

### TYPES OF MINORITY SCHOOLS

The minority schools train children from Jewish, Armenian, and Greek families. All these schools are operated and financed by the respective national groups, but the Ministry of Public Education, through its inspectors and other agencies, maintains a control over these institutions and exercises a unifying influence over their program of studies; as a result the courses offered in such schools have all been brought in line with the public-school curriculums. All the minority schools must teach the Turkish language, and the instructions in civics, geography, history, and sociology must also be conducted in Turkish. Outside of these restrictions which are aimed at the assimilation of minorities, the schools have considerable freedom and autonomy with regard to their activities.

*Table 27.—Minority schools in Istanbul, number of teachers and students, 1949–50*

Minority group and type of school	Number of schools	Enrollment			Number of teachers		
		Total	Boys	Girls	Total	Men	Women
1	2	3	4	5	6	7	8
All minority groups.....	102	9,473	5,151	4,322	891	279	612
Armenian							
Primary (3 years).....	28	2,625	1,308	1,317	276	53	223
Middle (3 years).....	5	369	245	124	60	27	42
Lycee (3 years).....	2	219	199	20	24	10	14
Total.....	35	3,213	1,782	1,431	300	90	279
Jewish							
Elementary (5 years).....	8	947	490	457	76	26	48
Middle (3 years).....	1	98	73	25	11	6	5
Lycee (3 years).....	1	98	73	25	11	6	5
Total.....	10	1,143	630	507	98	40	58
Greek							
Elementary:							
(6 years in Istanbul).....	43	3,631	1,875	1,756	324	76	248
(5 years Island of Imbroz).....	4	577	319	258	20	12	8
Middle (3 years).....	6	492	300	192	52	30	12
Lycee (3 years).....	4	417	269	148	28	22	6
Total.....	87	8,117	4,763	3,854	424	140	278

In addition to the minority schools shown in table 27, there are three American schools, one Bulgarian, eight French, two English, one Iranian, and seven Italian schools.

French schools, most of which are in Istanbul, are operated by the French Catholic orders, such as the Christian Brothers, the Lazarist Brothers, the Sisters of Charity, and the Sisters of Zion. Schools operated by these religious orders receive subsidies from the French Government.

The operation of these schools during the early years of the Republic met with problems occasioned by developing nationalism. It has even been suggested that the spirit in which some foreign schools were conducted under these tense conditions may account in some part for a dislike of foreign influence.

There is a suggestion also that in extending their educational facilities, foreign schools have catered more largely to Turkish minorities (Turkish nationals of foreign origin) than to the pure Turks. A like question has been raised from time to time regarding the services rendered by foreign schools in other countries of the Middle East.

However, Robert College seems to have adjusted itself quite satisfactorily to conditions.

## ROBERT COLLEGE

The first American college to be established outside the United States was founded at Istanbul in 1863. The college, which covers 118 acres of land, is located at Rumeli Hisar on the European side of the Bosphorus on one of the most beautiful sites in that area. Robert College, which bears the name of its first benefactor, Christopher Rhinelander Robert, was incorporated on April 24, 1863, under the laws of the State of New York. The aim of the college is to adapt its work to the educational needs of the Turkish Republic.

### *Course of study*

The program of studies of Robert College has been extended to cover the fields of special demand in Turkey, and courses are offered in engineering, commerce, economics, biological sciences, and humanities. Effort is being made to maintain a standard of work that will meet the country's practical requirements and measure up to the scholastic standards of American colleges and of similar institutions in Europe. The Engineering School of the college, which was established in 1912, is well known in the Near East.

The college consists of an academy (secondary school), a college of arts and science, and an engineering school.

The courses of instruction provided in the academy extends over 5 years. New students receive special instructions in English, since a thorough knowledge of this language is essential for work both in the academy and in the college. This instruction is given in the first and second preparatory classes which cover a 2-year period. Upon com-

Table 28.—Program of studies in the Robert Academy

Subject	Periods a week, by class and year					
	Preparatory		Form			
	I	II	I	II	III	
1	2	3	4	5	6	
Turkish.....		5	5	5	5	5
English.....	15	15	5	5	5	5
Mathematics (Arithmetic, algebra, etc.).....	6	5	4	6	5	5
History.....			2	2	2	2
Science (physics, biology, chemistry).....		3	2	2	2	2
Geography.....			2	2	2	2
Civics.....				2	2	2
Music.....	1	1	1	1	1	1
Speech.....			3	2	2	2
Translation.....				2	2	2
Hygiene.....				1		
Drawing.....	3	3	2			
Woodwork.....	3	2	2	2		
Physical education.....	2	2	2	2		
Penmanship (if needed).....	2					
Total.....	34	30	28	32	30	

pletion of the preparatory classes, the student may then enter the first regular class of the academy—called Form I. There are three forms, or classes, in the academy. In addition to satisfactory completion of the work of the academy, the student must also pass a special college-entrance examination before he can be admitted to the college.

*Table 29.—Program of studies in the College of Arts and Sciences  
ARTS*

Subject	Hours a week, by year			
	Freshman	Sophomore	Junior	Senior
1	2	3	4	5
Turkish literature				
History	10	10	6	6
Speech	4	4	4	4
Mathematics	4	2		
Physics theory	11	4		
Physics laboratory	6			
Chemistry theory	12			
Chemistry laboratory		5		
Literature			14	
Composition	6			
Military science	4	4	4	
Geography	2	2		
Translation		4	4	
American literature			2	4
European literature		6		2
Philosophy			8	
Human biology			6	
Logic		4		
History of art			4	
French or German			3	
Sociology			3	12
Psychology				6
English literature				4
Thesis (research)				6
1-3-hour course from elective list. <i>Electives<sup>1</sup></i>				4
History of education			4	4
French literature			4	4
German literature			4	4
Speech			2	2
Shakespeare			2	
Modern literature			3	3
The drama			3	3
Advanced American literature			3	3
Greek and Roman literature			3	3
Journalism			3	3
Modern philosophy			3	3

<sup>1</sup> Double period.

<sup>2</sup> Juniors taking less than 6 hours of French or German must take two 3-hour electives each term.

<sup>3</sup> Not all electives will necessarily be taught each year.

## COMMERCE

Subject	Hours a week, by year			
	Freshman	Sophomore	Junior	Senior
1	2	3	4	5
Turkish literature	10	10	6	6
History	4	4	4	4
Speech	4	2		
Mathematics	12	4		
Physics theory	6			
Physics laboratory	12			
Chemistry theory		6		
Chemistry laboratory		14		
Human biology		4		
Literature	6			
Composition	4	2		
Business knowledge	3			
Hygiene	4			
Military science	2	2	2	
Geography		4	4	4
Translation			2	2
World literature			6	
American literature		6		
Philosophy			6	
Logic			4	
Sociology			6	
Economics				6
Statistics			6	
Accounting theory		6	6	
Accounting practice		12	12	
Psychology				4
Money and banking				3
Marketing				3
Business English			4	
Business law				2
Insurance				3
Foreign trade				3
Business administration				3
Public finance				3
<i>Electives</i>				
Speech			2	
French				
German				
Turkish business correspondence				2

## EXACT SCIENCES

Subject	Hours a week, by year			
	Freshman	Sophomore	Junior	Senior
1	2	3	4	5
Turkish literature	10	10	6	6
History	4	4	4	4
Geography		4	4	4
Speech	4	2		
Mathematics	11	6		
Physics theory	6		6	10
Physics laboratory	12		12	14
Chemistry theory		6		
Inorganic chemistry laboratory I		12		
Inorganic chemistry laboratory II			12	
Zoology		4		
Qualitative analysis laboratory		12		
Quantitative analysis			3	
Principles of chemistry			3	
Structure of matter			3	
Quantitative analysis laboratory			12	
Calculus			6	
Logic			4	
Sociology		4		6
Psychology				4
Geology theory				3
Geology laboratory				12
Organic chemistry				6

Subject	Hours a week, by year			
	Freshman	Sophomore	Junior	Senior
1	2	3	4	5
Organic chemistry laboratory				
Literature	6	6	6	14
American literature				
World literature				
Composition	4	2	6	
Translation	4	2	2	2
Hygiene				
Military science	2	2	2	
Electives				
French				
German				3
				6

\* History, geography, Turkish literature, and sociology are taught in the Turkish language only      \* Differential equations.      \* Mechanics.

#### NATURAL SCIENCE

Subject	Hours a week, by year			
	Freshman	Sophomore	Junior	Senior
1	2	3	4	5
Turkish literature				
History	10	10	6	6
Geography	4	4	4	4
Speech				
Composition	4	2		
Mathematics	4	2		
Calculus	11	6		
Translation			4	
Literature	6		2	2
American literature				
World literature		6	6	
Logic			4	
Psychology				
Sociology				4
Physics theory				
Physics laboratory	6		6	6
Zoology theory				
Zoology laboratory	12		12	
Botany theory				
Botany laboratory	3			
Chemistry theory				
Inorganic chemistry laboratory I				
Inorganic chemistry laboratory II				
Qualitative analysis				12
Physiology theory				
Physiology laboratory	12			3
Ecology theory				42
Ecology laboratory				
Mathematics of biology				12
Principles of chemistry				2
Structure of matter				3
Comparative anatomy				3
Comparative laboratory			3	
Advanced botany			2	
Advanced botany laboratory			3	
Hygiene			12	
Military sciences	4	2	2	
Electives				
French				
German				

**THE ENGINEERING SCHOOL**

The Engineering School has four regular classes and offers curriculums in three branches of engineering: civil engineering, electrical engineering, and mechanical engineering. The language of instruction is English, and considerable stress is laid on the ability of the student to express himself competently in English.

Enrollment is limited to approximately 300 and is composed mainly of students from two sources: (1) Those who have completed 7 years of education in Robert Academy and Robert College; (2) those who have completed a Turkish lycee or its equivalent and have sufficient knowledge of English. Upon completion of the prescribed course of study of 4 years, the student is awarded the degree of Bachelor of Science in Engineering with designation of the branch of engineering which he has followed in his upper-class years.

*Table 30.—Program of studies in the engineering school*  
**FRESHMAN YEAR**

Course	Hours a week, by semester			
	I		II	
	Recitation	Laboratory	Recitation	Laboratory
1	2	3	4	5
Social and economic history and Geography of Turkey	2			
Beginning Turkish	3			
English composition and types of literature	3			
Grammar composition and study of the essay	5			
Mathematics	3			
Physics	3	2	3	2
Engineering drawing			8	8
Engineering chemistry	3	4	3	4
Military science	1		1	

**SOPHOMORE YEAR**

Western civilization	2		2	
Turkish grammar	2		2	
Technical writing and study of scientific thought	3		3	
Calculus	3		3	
Physics	5	4	6	4
Descriptive geometry		4		
Applied mechanics	3		3	
Surveying		4		
Pattern shop		4		
Machine shop				4
Summer shop (4 weeks)				
Summer surveying (4 weeks)				

**Civil Engineering**  
**JUNIOR YEAR**

Course	Hours a week, by semester			
	I		II	
	Recitation	Laboratory	Recitation	Laboratory
1	2	3	4	5
Regional planning.				
Turkish reading and composition.	2		2	
Practice in forms of public speaking.	2		2	
Differential equations.	3			
Highway & railway engineering.	3		3	
Geology.			3	
Resistance of Materials.	4		3	4
Advanced surveying.				
Materials of construction.		4		
Fluid mechanics.			3	4
Hydraulic laboratory.	3			
Theory of structures.		4		
Structural design.			3	
Water supply.			3	4
Water supply design.				4

**SENIOR YEAR**

Social and economic problems in Turkey.	3		3
Advanced Turkish reading and composition.	2		2
Heat power engineering.			3
Engineering economics.			3
Highway and Railway design.			3
Reinforced concrete.	4	4	
Foundations.			3
Principles of electric engineering.	3	4	
Methods of construction.			3
Construction inspection.			3
Sanitation.	3	4	
Sanitation design.	3		3
Structural design.			

**Electrical Engineering**  
**JUNIOR YEAR**

Course	Hours a week, by semester			
	I		II	
	Recitation	Laboratory	Recitation	Laboratory
1	2	3	4	5
Regional planning.				
Turkish reading & composition.	2		2	
Practice in forms of public speaking.	2		2	
Differential equations.	3		3	
DC circuits and machinery.	4			
Electrical engineering laboratory.		4		
AC circuits.				4
Resistance of materials.			3	
Mechanism and machine elements.	3			
Machine elements design.	3		3	
Heat power engineering.	3	4		
Mechanical engineering laboratory.			3	
Materials testing laboratory.		4		
Fluid mechanics.			3	

## SENIOR YEAR

Social and economic problems in Turkey	3		3
Advanced Turkish reading and composition	2		2
Engineering economics			3
Heat power engineering	3		
Mechanical engineering laboratory		4	4
Refrigeration	3		
Non-ferrous metallurgy	3		
Air conditioning			3
Physical metallurgy	3		
Power plant layout		4	4
Metallography laboratory		4	
Physical metallurgical laboratory			4

## ENROLLMENT

In 1950 there were 327 students in the academy section, 224 in the college of arts and science, and 307 in the engineering school. These figures for 1950 included special students as well as those studying in the preparatory classes. Students of the following national origins were represented in the college: Turkish, Armenian, Greek, Iraqi, American, Syrian, Bulgarian, German, Iranian, Russian, Albanian, Italian, Lebanese, Afghan, Arabian, Polish, Czechoslovak, Serbian, Yugoslav.

### AMERIKAN KIZ KOLEJI (THE AMERICAN COLLEGE FOR GIRLS)

The American College for Girls, also known as Istanbul Women's College, founded in 1871 as a high school, is under joint administration with Robert College and is located directly across the bay from it. Twenty years after the school was established, it was developed into a college and was then granted a charter by the State of Massachusetts. The stately buildings of the college were made possible by generous gifts of six Americans.

This was the first college in the near East to admit Moslem women. Although the registration of Turkish students began in 1908, the great change to a largely Turkish student body did not begin until the proclamation of the Turkish Republic in 1923. Before that date most of the graduates were either from the minorities of the Ottoman Empire or from Balkan countries.

The college owns 62 acres of land at Arnavutkoy on the Bosphorus. There are five principal school buildings and eight other buildings used for residence of faculty staff and employees.

The college consists of a preparatory school and a college of arts and sciences. The preparatory school has three regular classes and two special classes devoted mainly to the intensive study of English. The college has four regular classes, and a special class for intensive study of English.

**PREPARATORY SCHOOL**

The course of study in this school extends over 5 years. Graduation from the preparatory school does not automatically admit the student to the college, since a graduate of the preparatory school must pass an English examination to qualify for admission to the freshman class of the college.

*Table 31.—Program of studies in the preparatory school*

Subject	Hours a week				
	Special I	Special II	Form I	Form II	Form III
	2	3	4	6	8
Turkish.....					
English.....					
Arithmetic.....	18	15	10	5	5
General Science.....	5	5		8	7
Music.....			3		
Drawing.....	1	1	1	1	1
Penmanship (if needed).....	1	1	1		
History.....	1	1			
Geography.....			2	2	2
Civics.....			2	2	2
Translation (English to Turkish).....				2	2
Mathematics (arithmetic, algebra, plane geometry and algebra).....				2	2
Biology.....				5	5
Physics.....				4	
Chemistry.....					3
Physical education.....	2	2	2	2	2

**COLLEGE OF ARTS AND SCIENCE**

The college awards the degree of Bachelor of Arts and Bachelor of science. Students who have completed the program of studies in the preparatory school are required to pass a comprehensive oral and written college entrance English examination before they can be admitted to the freshman class. Students from other secondary schools enter the special college class, where they may study for about 2 years and prepare themselves for the comprehensive college entrance English examination.

*Table 32.—Program of studies in the College of Arts and Science*

Subject	Credit hours
FRESHMAN YEAR—B.A. AND B.S.	
Turkish literature.....	5
Ancient history.....	2
English composition and literature.....	6
Algebra and trigonometry.....	5
Biology (two lectures—recitations) (one 3-period laboratory).....	3
Economics.....	3
Physical education (2 periods a week).....	1
Military science.....	1
Total.....	26

Turkish literature, history, military science are taught in Turkish only.

## SOPHOMORE YEAR-B.A.

<i>Subject</i>	<i>Credit hours</i>
Turkish literature	5
Medieval history	2
Physical geography	2
Military science	1
American literature and composition	5
Inorganic chemistry (three lectures—recitations) (one 3-hour laboratory)	4
Physiology and hygiene (two lectures—recitations) (one double period laboratory)	3
Physical education (two periods a week)	1
<b>Total</b>	<b>23</b>

## SOPHOMORE YEAR-B.S.

<i>Subject</i>	<i>Credit hours</i>
Turkish literature	5
Medieval history	2
Physical geography	2
Military science	1
American literature and composition	5
Inorganic chemistry (three lectures—recitations) (one 3-hour laboratory)	4
Physiology and hygiene (two lectures—recitations) (one double period laboratory)	3
Analytical and solid geometry	4
Physical education (two periods a week)	1
<b>Total</b>	<b>27</b>

*Electives open to Sophomores*

French or German	3
Typewriting—four periods instruction, at least five period practice	4

## JUNIOR YEAR-B.A.

<i>Subject</i>	<i>Credit hours</i>
Turkish literature	3
Turkish history	2
World geography	2
Military science	1
Survey of English literature	5
Physics (three lectures—recitations) (one double period laboratory)	4
Logic	2
Philosophy	3
<b>Total</b>	<b>22</b>

## EDUCATION IN TURKEY

## JUNIOR YEAR-B.S.

Subject	Credit hours
Turkish literature	3
Turkish history	2
World geography	2
Military science	1
Survey of English literature	5
Physics (three lectures-recitations) (one double period laboratory)	4
Logic	2
Differential calculus	3
Organic chemistry (one lecture) (6 hours laboratory)	4
Total	26

Electives open to Juniors

French or German	4
Child guidance	2
Stenography	3

## SENIOR YEAR-B.A.

Subject	Credit hours
Turkish literature	3
Modern history	2
Geography of Turkey	2
Sociology	3
Comparative literature	3
Advanced English composition	3
Psychology	2
Physics:	2
(two lectures-recitations) (one double period laboratory)	3
Geology	1
Total	21

There are a number of elective subjects open to seniors, such as art appreciation or history of art, social and economic problems, child guidance, modern philosophy, teaching of English, modern literature, Shakespeare.

## SENIOR YEAR-B.S.

Subject	Credit hours
Turkish literature	3
Modern history	2
Geography of Turkey	2
Sociology	3
Comparative literature	3
Advanced English composition	3
Psychology	2
Physics	2
Geology	1
Total	21

There are a number of elective subjects open to seniors, such as child guidance, teaching of English, social and economic problems, stenography, integral calculus, and French or German.

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